Established 1835.

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, And Engineering Progress.

[*The* MINING JOURNAL *is Registered at the General Post Office as a Newspaper and for Transmission Abroad.*]

No. 3123.—VOL. LXV. LONDON, SATURDAY, JUNE 29, 1895. PRICE ..... SIXPENCE. BY POST, £1 4s. PER ANNUM.

A. CORNFORTH AND CO.,
STOCK BROKERS AND MINING SHARE DEALERS,
33, OLD BROAD STREET, E.C.; AND Mining Exchange, London.

BUSINESS IN ALL CLASSES OF STOCKS AND SHARES, SPECIAL BUSINESS in KAFFIR Shares. Prompt Delivery made a special feature.
Mining Circular free on application.
BANKERS: CITY BANK.—Telegraphic Address: "Athelney, London."

ASSAY OFFICE AND LABORATORY.
B. KITTO'S,
30 and 31, ST. SWITHIN'S LANE, LONDON, E.C.

ASSAYS MADE OF ALL ORES. ANALYSES.
ASSAYING TAUGHT.

ASSAY OFFICE AND ORE TESTING WORKS.
HERBERT R. EDMANDS,
NORLAND YARD WORKS
(Adjoining Uxbridge Road Station, W.).
Gold and Silver Assays, 7s. Cyanide, Amalgamation, Chlorination, or Concentration Tests, including assays, 14s. each.
Also Special Facilities for Testing Large Parcels of Ore.
Pupils Received.

STEVENS AND COMPANY,
STOCK AND SHARE DEALERS,
35, NEW BROAD STREET, LONDON, E.C.

Telegraphic Address—"Giftedness, London."

SPECIAL BUSINESS IN ALL MINING, MISCELLANEOUS, AND BREWERY SHARES AT NET PRICES.

Monthly Report Sent Free on Application.

MINERAL PROSPECTING AND BORINGS FOR WELLS.
Large Experience. Quick Speed. Work Guaranteed.
APPLY TO
VIVIAN'S BORING & EXPLORATION CO.,
(LIMITED)
WHITEHAVEN.
Deepest Borehole in England (3195 feet) put down by this Company who have completed about 56 miles of boring.
Telegraphic Address: "DIAMOND, WHITEHAVEN."

PUMPING MACHINERY.

See Illustrated Advertisement every Third Week.

HATHORN, DAVEY and CO., LEEDS.

CANNOCK CHASE COAL BY CANAL AND RAILWAY.

THE COMPANY SEND COAL BY RAILWAY in Trucks to all Stations, and load Canal Boats at their extensive Wharves on the Anglesey Branch of the Birmingham Canal, adjoining the Colliery; and also at Hednesford Basin, Cannock. For Prices, apply to
J. NEWLAND BROWN,
WARWICK CHAMBERS, CORPORATION STREET,
BIRMINGHAM.
Retail Department: COLMORE CHAMBERS, 1, NEWHALL ST., Birmingham.
London Office: 9 and 10, Southampton Street, High Holborn, W.C.

GOLD ASSAYING, &c.

GENTLEMEN having only a short time at their disposal can obtain SPECIAL INSTRUCTION in ASSAYING ORES of all kinds.
For Prospectuses, &c., apply to
MARTIN and PETHYBRIDGE,
ASSAYERS, &c., LABORATORY AND TESTING WORKS,
183, KING'S ROAD, CHELSEA, S.W.

Complete Analysis of Constituents of any Ore from £1 1s. to £2 2s.
GOLD ASSAYS CONDUCTED WITH CHECK, 7s. 6d. PER SAMPLE.
GOLD ORES PRACTICALLY TESTED BY STAMP BATTERY And other processes.

Messrs. PETER WATSON and Co.,
8, FINSBURY CIRCUS, LONDON, E.C.
(NEAR TO THE STOCK EXCHANGE, AND THE MINING EXCHANGE.

ALL ORDERS and TELEGRAPHIC MESSAGES to Buy or Sell Railway, Bank, Mine, and other Shares and Stocks punctually attended to, at Net Price, for Cash, or for Fortnightly Settlements, with advice as to Purchases or Sales, to be addressed to Messrs. PETER WATSON and Co.

Mr. J. GRANT MACLEAN,
Sharebroker and Ironbroker, Stirling, N.B.

A. and Z. DAW,
CONSULTING MINING ENGINEERS AND MINE MANAGERS,
11, QUEEN VICTORIA STREET, LONDON, E.C.
INSPECT AND REPORT UPON FOREIGN METALLIFEROUS MINES, AND UNDERTAKE THEIR MANAGEMENT AND ADMINISTRATION.

GEORGE GREGORY and CO.,
STOCK AND SHARE DEALERS,
LONDON, MANCHESTER, LIVERPOOL, BRIGHTON, HASTINGS.

Every Investor and Speculator, before operating, should read Gregory's "Hints to Speculators," 400 pages, Eighth Edition, Illustrated. Gratis and post free on application to
GEORGE GREGORY & CO.,
STOCK AND SHARE DEALERS,
NOS. 3 AND 4, TOKENHOUSE BUILDINGS, LOTHBURY, BANK OF ENGLAND, LONDON, E.C., and BRANCHES.

WALTER de VARILA, M.E., T.E., F.C.S.
Room 12, 316, CALIFORNIA STREET.
RESIDENCE: 820½ BUSH STREET, SAN FRANCISCO, CALIFORNIA.

MINES SAMPLED, ASSAYED, AND REPORTED ON.
PROPERTIES MANAGED, BONDED, AND SOLD.
FOREIGN CORRESPONDENCE SOLICITED.

J. M. SMITH,
Late Manager of the "AUSTRALIAN MINING STANDARD," is now located at
COOLGARDIE, WESTERN AUSTRALIA,
And is prepared to act as Trustee or Local Agent for English Companies. Mines Inspected on reasonable fee. First-class Properties for Sale. Highest references and credentials.
Use NEALE and MOREING'S Code.

Messrs. PARKYN and CO.,
MINE OWNERS AND MANAGERS, CONSULTING MINING ENGINEERS, AND MINING SPECIALISTS,
UNIVERSAL MINING OFFICES, ROCHE, CORNWALL.
INSPECTIONS, EXPLORING, OPENING-UP and MANAGEMENT of MINES undertaken at home or abroad. Have opened a Mining Inquiry Department, in which, upon payment of a fee of 5s., we reply to any questions relating to Mining matters. Should be consulted by all interested in Mines and Mineral Properties. Latest information re the Gold Fields of Australia.

BRITISH GUIANA AND THE NEW GOLD INDUSTRY.

BRITISH GUIANA BANK.
Incorporated by Ordinance of the Governor and Court of Policy of British Guiana 11th November, 1836.
Confirmed by the Queen in Council, 6th October, 1838.
SUBSCRIBED CAPITAL..... $1,400,000 | PAID-UP..... $926,520
RESERVE FUND, $288,000
CHAIRMAN: Mr. HUGH SPROSTON, JUN.
HEAD OFFICE: GEORGETOWN, DEMERARA.
MANAGER: GEO. W. LANE. | ACCOUNTANT: E. J. N. THOMAS
BRANCH OFFICE: NEW AMSTERDAM, BERBICE.
AGENTS, London..... Smith, Payne, and Smiths.
New York..... Maitland, Phelps, and Co.
British North America Bank of British North America.
Newfoundland ..... Union Bank of Newfoundland.
Current Accounts opened in accordance with the usual practice of Bankers.
Money Received on Deposit on Interest. Bills of Exchange negotiated.
Letters of Credit issued by London Agents on Demerara free of charge.
Raw Gold Purchased or Shipped on Consignment.
Bills Collected and every other description of Banking Business transacted

THE BANK OF AFRICA (LIMITED).
ESTABLISHED 1879.
Head Office, 113, Cannon Street, London.
SUBSCRIBED CAPITAL £750,000
Paid-up, £250,000; Reserve Fund, £142,500.
General Manager—JAMES SIMPSON, Cape Town.
BRANCHES
Aliwal North, Cape Town, Cradock, East London, Grahamstown, Kimberley King Williams Town, Oudtshoorn, Paarl, Port Elizabeth, Queen's Town Bethlehem, Bloemfontein, Fauresmith, Harrismith, Ladybrand, Winburg Durban, Newcastle, Pietermaritzburg, Barberton, Johannesburg, Pretoria Vryheid, Beira, Delagoa Bay, Bulawayo.
The Bank issues drafts, makes telegraphic remittances, buys and collects bills and conducts all kinds of banking business.
Deposits received on terms which may be ascertained on application.
R. G. DAVIS, Secretary.

RICHARD J. MIDDLETON, F.G.S.E., &c.,
MINING AGENT,
Is prepared to give advice upon all matters connected with the Mining Industry: to negotiate the Sale of Mining Properties; and to personally conduct all Engineering and Financial Business transacted through his Agency.
Address:—Broad Street House, London, E.C.

R. C. CAMPBELL-JOHNSTON.
(OF SWANSEA, INDIA, AND THE STATES).
THREE YEARS IN BRITISH COLUMBIA.
MINING ENGINEER AND METALLURGIST.
POSTAL ADDRESS: BOX 40, VANCOUVER, B.C.
CABLE ADDRESS: CAMPBELL-JOHNSTON, VANCOUVER.
A.B.C. CODE.
MINES EXAMINED AND REPORTED ON, DEVELOPED AND MANAGED.
Furnaces, Mills, and Mining Plants Planned and Erected.
ORES BOUGHT AND SOLD.

A. G. CHARLETON,
MINING AND METALLURGICAL ENGINEER.
Memb. North of England Inst. of Mining & Mechanical Engineers, A.R.S.M.,
Mem. American Inst. of Mining Engineers.
Address, Dashwood House, E.C.

Mr. W. FAIRLEY, Ph.D., F.G.S.,
Mining Engineer,
SHAFTO HOUSE, CHESTER-LE-STREET, DURHAM,
Is prepared to report on all matters relating to Coal and Metalliferous Mining. Forty years' experience in Great Britain, Germany, and America.

THE GOLD FIELDS OF WESTERN AUSTRALIA.

ALBERT F. CALVERT,
MINING ENGINEER.
Author of "Western Australia and its Gold Fields"—"The Discovery of Australia"—"The Mineral Resources of Western Australia," &c., &c.
Editor and Proprietor of the *West Australian Review*, a Weekly Newspaper devoted to Westralian interests.
Undertakes MANAGEMENT, INSPECTIONS, SURVEYS, and guarantees reliable Mining Reports on all West Australian and other Mines.
Writing to the *Financial News* of 23rd November, on the Gold Fields of Western Australia, Lord Percy Douglas says:—"From his intimate knowledge of the subject, gained by personal experience in Western Australia, as well as on nearly every gold field in the world, I consider there is no one better qualified to express an opinion on the subject than he (Mr. Albert F. Calvert). In fact, he is the only man that I know of in this country who has visited all the gold fields of this immense colony."
Address—47, Old Broad Street, E.C.
Telegrams and Cables—"Quarterage, London."

OLE O. SKAUEN,
ARENDAL, NORWAY.
Telegraphic Address: "SKAUEN, ARENDAL."
MINEOWNER AND EXPORTER OF NORWEGIAN MINERALS AND ORES OF ALL KINDS.
AGENCY AND COMMISSION BUSINESS.
GOOD AGENCIES UNDERTAKEN.

Captain Wm. WILLIAMS, M.A.I.M.E.,
MINE MANAGER, CONSULTING MINING ENGINEER, &c.
76, Eyre Street, and 25, Mining Exchange,
BALLARAT, VICTORIA.
Undertakes the INSPECTION, REPORTING, and MANAGEMENT of MINES and MACHINERY in any part of Australasia. Also the Collection of Mines for absentees.
(UPWARDS OF 20 YEARS HIGHEST REFERENCES AND CREDENTIALS.)

GOLD INDUSTRY. BRITISH GUIANA.
Gold Mining Agency Office: Tower Buildings.
Agency and Secretaryship for Gold Companies at very Moderate Charges.
Estimates of Expenditures and full particulars respecting the Gold Industry supplied gratis on Application.
M. J. MORPURGO,
"P.O.B. 12," GEORGETOWN, DEMERARA.

807 pp. Royal 8vo., Well Bound in Cloth, 21s.
McNEILL'S
MINING AND GENERAL TELEGRAPHIC CODE,
Containing over Forty-four Thousand Phrases.
By BEDFORD McNEILL, F.G.S., &c., Mining Engineer.
"Undoubtedly the most complete technical code existing."—*Industries.*
LONDON: WHITEHEAD, MORRIS & Co., LTD., 9, Fenchurch St., E.C.
CAPE TOWN: E. R. MORRIS, Belfast Chambers.
ADELAIDE, PERTH, BROKEN HILL, } AUSTRALIA, E. S. Wigg & Son.

For Index to Advertisements see Page 754.

For Literary Contents see Page 768.

INDEX TO ADVERTISEMENTS.

(THOSE WITHOUT NUMBER OF PAGE DO NOT APPEAR IN THIS ISSUE.)

	PAGE.
Austin, J. B. ... ... Mineralogist	779
Bank of Africa, (Ltd.)	753
British Guiana Bank	753
Bennett, Sons, and Co. ... ... Fuse Manufacturers	—
Birkbeck Bank	772
Bowes-Scott and Western ... ... Mining Machinery	—
Bute Works Supply Company (Limited) ... ... Steel Rails, &c.	—
Business Cards	779
Campbell-Johnston, R. C. ... ... Mining Engineer	753
Calvert, Albert F. ... ... Mining Engineer	753
Cannock Chase Colliery Company ... ... Coal Exporters	753
Cassel Gold Extracting Co. (Ltd.) ... MacArthur-Forrest Process	780
Champion Rock Borer Co. ... ... Rock Borers	756
Charleton, A. G. ... ... Mining Engineer	753
Clarkson-Stanfeld Concentrator (Ltd.) ... Dry Concentration	757
Clayton and Shuttleworth ... ... Engineers	7 1
Companies and Legal Announcements	779
Corruforth and Co. ... ... Share Dealers	753
Cotton Powder Co. (Ltd.) ... ... Explosives	781
Curtis's and Harvey ... ... Gunpowder Manufacturers	784
Davies, Henry ... ... Mining Engineer	752
Davis and Son ... ... Mining, &c., Instruments	784
Daw, A. and Z. ... ... Mining and Civil Engineers	753
Daw, A. and Z. ... ... Rock Drills	782
Delta Metal Co. (Ltd.) ... ... Metal	784
Dixon and Co. ... ... Iron Roofs and Buildings	—
Edmands, Herbert R. ... ... Assay Office	753
Electrical Co. (Ltd.) ... ... Dynamos and Motors	—
Elliman, Sons, and Co. ... ... Embrocation	782
For Sale	779
Francis and Jenkins ... ... Copper Works Ladles	—
Fraser and Chalmers (Ltd.)... ... ... Mining Machinery	754
Frictionless Engine Packing Company ... Engine Packing, &c.	755
Gates Ironworks Co. ... ... Rock and Ore Breaker	781
Gilkes and Co. ... ... Turbines	779
Green, G. ... ... Ore Dressing Machinery	7.6
Gregory, G , and Co. ... ...Stock and Share Dealers	753

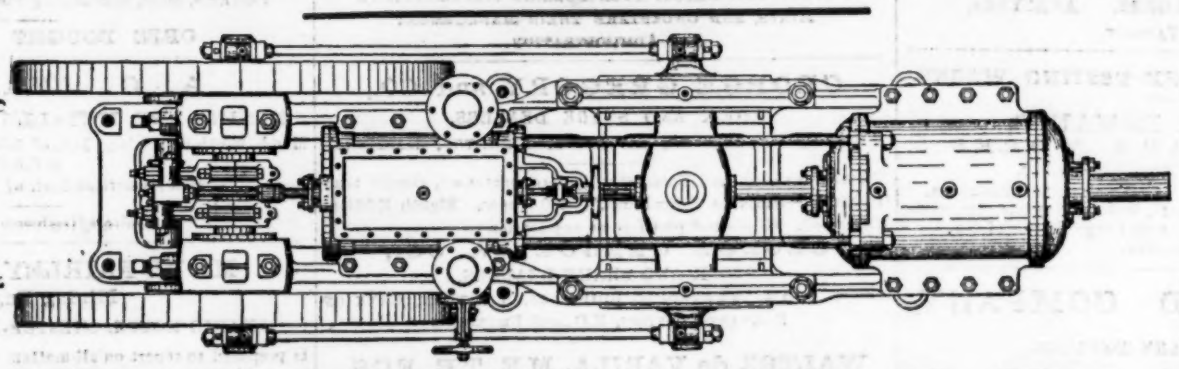
	PAGE
Hardy Patent Pick Co. ... ... High Class Tools	782
Hathorn, Davey and Co. ... ... Pumping Engines	—
Holman Bros. ... ... Rock Drills and Compressors	757
Howes, S. ... ... Turbines	779
Humboldt Engineering Works Co. ... ... Mining Machinery	—
Humble, S., jun. ... ... Hand Power Fan	—
Huntington, Professor ... ...Instruction in Assaying	—
Ingersoll-Sergeant Drill Co, of America, Rock Drills and Compressors	7 4
Ireland, James ... ... *Colliery Ready Reckoner*	780
Jones, J. A.... ... ... Mining Engineer	780
Kitto, B. ... ... Assay Office	753
Krupp Grusonwerk... ... ... Ore Extraction Machinery	—
Lambert's Wharfage Company	768
Larmuth, T., and Co ... ... Mining Machinery	—
Lancashire Patent Belting Co. ... ... Mining Specialities	—
Lancaster and Tonge ... ... Steam Pistons	755
Lloyd and Lloyd ... ... Tubes	—
Maclean, J. Grant ... ... Share and Iron Broker	753
McNeill's Code	753
Marsden, H. R. ... ... Stone Breakers and Ore Crushers	784
Martin and Pethybridge ... ... Assay Laboratory	753
Merry and Co. ... ... Assayers	—
Merton and Co. ... ... Aluminium	756
Middleton, Richard J. ... ... Mining Agent	753
Miners' Safety Explosive Com. (Ltd.) ... ... Explosives	—
Morpurgo, M J. ... ... Gold Mining Agency	753
Morton and Co. ... ... Stock and Share Dealers	753
Nobel's Explosives Co. (Ltd.) ... ... Water Cartridges, &c.	733
Pacific Mining Agency and Trust Company... Commission Agency	758
Parkyn and Co., Messrs. ... ... Mine Owners and Managers	753
Parkin ... ... Signal Bells	786
Pass and Son ... ... Buyers of Lead Ashes, &c.	768
Phosphor Bronze Co. (Ltd.)... ... ... Bulls Metal, &c.	780

	PAGE
Piggott and Co. ... ... Welded and Riveted Pipes	—
Publications	780
Robey and Co, ... Engines and Ore Crushers	783
Roburite Explosives Co. (Ltd.) ... ... Explosives	—
Ropeways Syndicate ... ... Aerial Wire Ropeways	772
Rose, James ... ... *New Guide to the Iron Trade*	730
Royal Cornwall Polytechnic Society	768
Sales by Auction	779
Sandycroft Foundry Company ... ... Mining Machinery	781
Sandycroft Foundry Company ... ... Electrical Machinery	—
Schram and Co. ... ... Rock Drills and Compressors	7 6
Shipping...	779
Smith, J. M. ... ... Mines Inspected	753
Spencer, John ... ... Iron and Steel Tubes	—
Stanley, W. F. ... ... Mathematical Instruments	754
Stevens and Co. ... ...Stock and Share Dealer	753
Stewart and Clydesdale ... ... Iron and Steel Tubes	756
Stewart and Co. (Ltd.) ... ... Engineers and Boiler Makers	783
Tacknote ... ... *Form of Licence to Explore*	780
Tangyes Limited ... ... Engines, &c.	755
To Let	779
Tuck and Co. (Ltd.) ... ... Packing Manufacturers	784
United Asbestos Co. (Ltd.)... ... ... Asbestos	780
Unity Safety Fuse Co. ... ... Safety Fuse	—
Varila, Walter de ... ... Assayer	753
Vivian's Boring Co. (Ltd.) ... ... Boring Machinery	753
Walker Brothers ... ...Air Compressing Engines	753
Wanted	779
Ward, Thos W. ... ... Rails, &c.	784
Watson, P. and Co. ... ... Share Dealers	753
Weatherdon, J. H. .. .. "Monarch" Rock Drill	781
Wiggin and Co. (Ltd.) ... ... Nickel Refiners	748
Williams, Captain William ... Consulting Mining Engineer	753
Wood, Charles ... ... Portable Railways, &c.	755

INGERSOLL-SERGEANT

PISTON INLET COLD-AIR COMPRESSORS.

A. E. W. GWYN, AGENT.



TELEGRAMS: "ENYAM, LONDON."

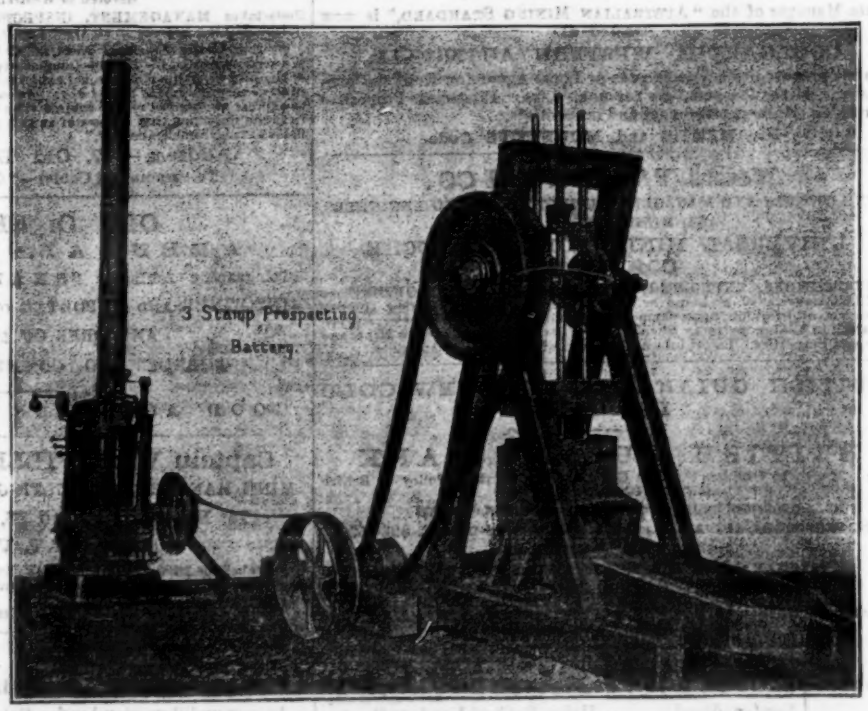
A HIGH DUTY AIR COMPRESSOR, STEAM OR BELT ACTUATED.
DUPLEX CORLISS AIR COMPRESSORS. DIAMOND and PROSPECTING DRILLS.

Write for Catalogue.

THE INGERSOLL-SERGEANT DRILL CO., 114A, QUEEN VICTORIA ST., LONDON, E.C.

PROSPECTING MILLS.

Light Portable Plant for Prospecting and Preliminary Work on Mines.
Stamps and Huntington Mills.
Horse Whims and Horse Power for Mills or Pumping.
Machinery in Sections for Transportation by Mules or by Men.
Assay Outfits.
Portable Engines and Water-Tube Boilers.
Pelton or Turbine Water-Wheels.
Piping Nested for Riveting up at Mine.
Steam Pumps and Cornish Pumps.



3 Stamp Prospecting Battery.

FRASER AND CHALMERS,

LIMITED.

Makers of all Classes of Improved MINING, MILLING, SMELTING, CONCENTRATION and LEACHING MACHINERY.

HIGH-CLASS CORLISS AND OTHER STEAM ENGINES, WITH EFFICIENCY GUARANTEED.

BOILERS, PUMPS, HOISTING ENGINES,
PERFORATED METAL WORK, ROCK DRILLS.
DIAMOND DRILLS. COMPRESSORS.
PELTON WATER-WHEELS. LEFFEL TURBINES.
FINE CRUSHING ROLLS.
CRUSHERS AND HUNTINGTON MILLS.

RIEDLER PUMPS AND COMPRESSORS.
SCHWOERER SUPERHEATERS.
FURNACES FOR PYRITIC SMELTING.
COPPER BESSEMERISING AND REFINING PLANTS.

WORKS—	*OFFICE*—
ERITH, KENT.	43, Threadneedle St.,
CHICAGO, ILL., U.S.A.	LONDON, E.C.

THE AFRICAN REVIEW.

THE RECOGNISED ORGAN OF THE SOUTH AFRICAN MINING INDUSTRIES.

Published every Saturday. Price 3d. Subscription 15s., Post Free in the U.K., or £1 1s. abroad, payable in advance. Cheques and Postal Orders to be made payable to WILLS, CANNELL, & RIDER HAGGARD (LIMITED), 10, Basinghall Street, E.C. Subscription forms on application.

Mining News from the WITWATERSRAND and RHODESIAN GOLD FIELDS, the DIAMOND FIELDS, SOUTH WEST AFRICA, MOZAMBIQUE, &c. Special Correspondence from JOHANNESBURG, KIMBERLEY, and elsewhere.

RELIABLE STATISTICS. Financial and Commercial Intelligence from Cape Colony, Congo Free State, East Africa, Egypt, Mozambique, Morocco, Natal, Orange Free State, Rhodesia, South West Africa, Transvaal, &c.

THE AFRICAN REVIEW may be obtained at any of Messrs. W. H. SMITH and SONS' Bookstalls, or from our Agents as under:—

London—Blair's, Pottle's, and Everett's, Royal Exchange; Leathwaite and Simmonds, 1, Pope's Head Alley. Liverpool—J. Trenwith Wills, African Chambers. Capetown—Twycross and Co. Kimberley—W. Roper, *Advertiser* Office. Port Elizabeth—W. Harris and Co Durban—Brunskill and Henderson. Pietermaritzburg—P. Davis and Sons. Barberton—A. W. Bayley and Co., *Gold Field News* Office. Johannesburg—The S. A. Publishing Company (Limited), Leakes Chambers, Simmonds Street; The *Diggers' News* C. and P. Co. (Limited), Simmonds Street P Davis and Sons, Pietersburg—Wm. Brown, *Zoutpansberg Review*. Fort Salisbury (Mashonaland) W. E. Fairbridge.

W. F. STANLEY

Mathematical Instrument Manufacturer

To H.M. Government, Council of India, Science and Art Department, Admiralty, &c.

MINING, SURVEYING AND DRAWING INSTRUMENTS

OF EVERY DESCRIPTION, OF THE HIGHEST QUALITY AND FINISH, AT THE MOST MODERATE PRICES.

Price Lists post free.

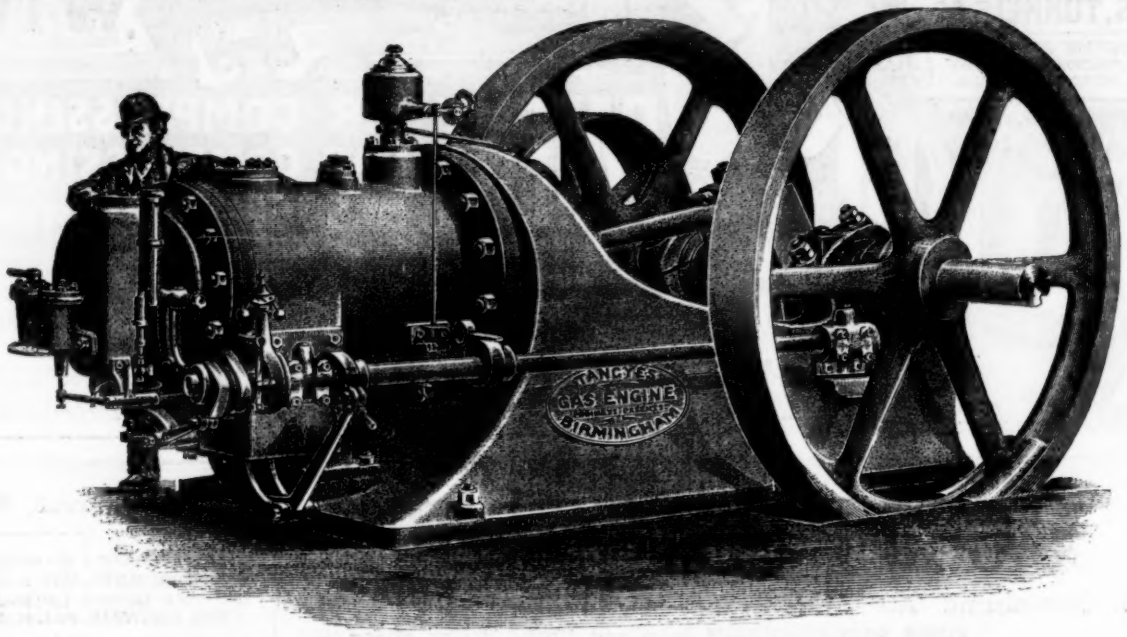
Address—Great Turnstile, Holborn, London, W.C.

GOLD MEDAL, Inventions Exhibition, 1885
" " Mining " 1890

TANGYES' GAS ENGINE.

"OTTO" PRINCIPLE. PINKNEY'S PATENTS.

Messrs. TANGYE have laid down special plant and tools for the manufacture of these Engines, and are able by their system of MULTIPLE MANUFACTURE and of WORKING TO GAUGE to turn them out in the best possible style.



The 35 H.-P. (Nom.) Engine—giving 86 ACTUAL HORSE-POWER, and indicating 100 H.P.
Single Engines from ¼ to 146 Actual H.-P. (=170 Ind. H.-P.) and Coupled Engines from 86 to 292 Actual H.-P. (=340 Ind. H.-P.)

Apply for Illustrated and Descriptive Catalogue of Gas Engines to

TANGYES LIMITED, BIRMINGHAM.

ALSO AT

LONDON, NEWCASTLE, MANCHESTER, GLASGOW, SYDNEY, JOHANNESBURG, BILBAO, ROTTERDAM, and BELFAST.

Telegrams—"TANGYES, BIRMINGHAM." No. 84c.

THE "LANCASTER"

STEAM PISTONS AND TRAPS

ARE ALWAYS SENT ON APPROVAL.

LANCASTER AND TONGE, PENDLETON.

THE WESTERN DAILY MERCURY.
The Paper for News.
The Paper for Advertisements.
The Paper for the People.
THE WESTERN WEEKLY MERCURY.
The Paper for the Household.
These Journals have an enormous circulation throughout Devo and Cornwall, and are conveyed by specially chartered trains.
OFFICES: PLYMOUTH.

"CHAMPION"

ROCK DRILLS

Have all the latest improvements resulting from 19 years' practical experience in constant work.

Unrivalled for efficiency and durability in Sinking Shafts, Driving Levels & Tunnels.

THE CHAMPION ROCK-BORER AND AIR COMPRESSOR CO.

SOLE PROPRIETORS AND MANUFACTURERS,
E. P. and H. P. VACHER,
MAKERS OF ROCK DRILLS, AIR COMPRESSORS,
TURBINES, WATER WHEELS, WATER MOTORS, RAMS,
AND OTHER
MINING MACHINERY.
63, Queen Victoria Street,
LONDON, E.C.

Telegraphic Address: "TURNSCREW, LONDON."

WOOD'S

PORTABLE RAILWAYS & ROLLING STOCK,
FOR PLANTATIONS, MINES, TRAMWAYS, &c.
EMPLOYED at all PARTS of the WORLD.
Illustrated Catalogue, Price Lists, and Estimates forwarded on Application to

Patent Rail-Bending Machine.

CHARLES WOOD, TEES IRON WORKS, MIDDLESBRO', ENGLAND.

TRADE MARK.

Telegraphic Address: "PACKLESS, MANCHESTER." TELEPHONE No. 1496.

Cable Mills, Glasshouse Street, Oldham Road, MANCHESTER.

IMPORTANT NOTICE.

WE have for a number of years been receiving numerous complaints from our Representatives and Agents that buyers have been deceived into purchasing Packings which are called "Frictionless," under the impression that they were buying our manufacture, or Packing of the same quality as the "Electric-Frictionless." To protect ourselves, and in the interest of our customers, we have registered the word "KARMAL," and by this name only will Electric-Frictionless be known in future. The Packing will not be altered in the slightest degree, either in its manufacture or material.

THE FRICTIONLESS ENGINE PACKING CO.

LIMITED.

LIVERPOOL JOURNAL OF COMMERCE
Is the best FINANCIAL and COMMERCIAL PAPER in the Provinces.
Is now Enlarged to Eight Pages.
Contains more Commercial and Shipping News than any other Morning Paper.
Proprietor, CHARLES BIRCHALL, 32, Castle Street, Liverpool.
LONDON OFFICE.—38, GRACECHURCH STREET.

WALKERS' PATENT "INDESTRUCTIBLE" VENTILATING FANS FOR MINES, TUNNELS, &c.

CONSTRUCTORS OF THE VENTILATING MACHINERY AT THE SEVERN AND MERSEY TUNNELS.

PATENT ANTI-VIBRATION SHUTTER Applicable to all enclosed Fans

WALKER BROTHERS

Engineers, Pagefield Ironworks, WIGAN.

WALKER'S PATENT AIR COMPRESSING ENGINES
GAS COMPRESSING ENGINES
BESSEMER BLOWING ENGINES

upwards of 400 of the above now AT WORK indicating in the aggregate 150,000 Horse-Power

Fisher & Walkers' Patent Friction Clutch & Underground Haulage Machinery

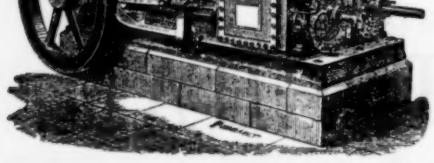
THIS GEARING IS NOW EXTENSIVELY IN USE FOR HAULAGE PURPOSES.

The objects attained are SIMPLICITY, ENDURANCE OF THE MACHINERY AND ROPES with a MINIMUM EXPENDITURE OF POWER.

AIR COMPRESSORS

With Compound Air and Steam Cylinders,

Fitted with SCHRAM'S Inlet and Outlet Valves giving the greatest efficiency.



SCHRAM'S IMPROVED

Rock Boring Machines.

Supplied to the Indian, Colonial, and other Governments.

2500 IN USE in all PARTS of the WORLD.

DIAMOND PROSPECTING DRILLS.

"OPTIMUS" COMPOUND ROCK DRILL.

(P. J. OGLE'S PATENT.)

Consumes 40 per cent. less Compressed Air than any other Drill at the same time giving the most effectual results.

ESTIMATES AND FULL PARTICULARS ON APPLICATION.

RICHARD SCHRAM & CO., 17a, Great George Street, Westminster, S.W.

TELEGRAMS: "SCHRAM, LONDON," A1, A.B.C. and The Engineering Telegraph Codes Used.

Telegrams—Green, Foundry, Aberystwyth.

SILVER MEDALS AWARDED AT THE ROYAL CORNWALL POLYTECHNIC, 1872 & 1876; GOLD MEDAL AWARDED AT THE GREAT INTERNATIONAL MINING EXHIBITION, CRYSTAL PALACE, 1890.

ONLY AWARDS GIVEN FOR CONCENTRATION PLANTS

GEORGE GREEN'S PATENT

Self-Acting or Automatic Ore Dressing Machinery,

A Special Plant, on a reduced scale, has been erected at the Works by which samples of METALLIC ORES—up to Five Tons may be treated, and the commercial value determined, in this way the most suitable arrangement of Plant is ascertained, a considerable advantage to intending Purchasers of Crushing and Concentrating Plant.

GOLD STAMP AND OTHER MILLS.

GEORGE GREEN,

THE FOUNDRY, ABERYSTWYTH.

For PURE ALUMINIUM

98 to 99½ per cent. (98 per cent. minimum guaranteed) in

INGOTS, STICKS, & ROLLING SLABS;

ALSO FOR

SHEETS, &c., AND FERRO-ALUMINIUM.

ALUMINIUM.

APPLY TO

HENRY R. MERTON & CO.,

2, Metal Exchange Buildings, Leadenhall Avenue,

LONDON, E.C.

A. & J. STEWART and CLYDESDALE, Limited.

Glasgow, Coatbridge, and Mossend.

WROUGHT IRON WELDED TUBES and FITTINGS for GAS, WATER, and STEAM.

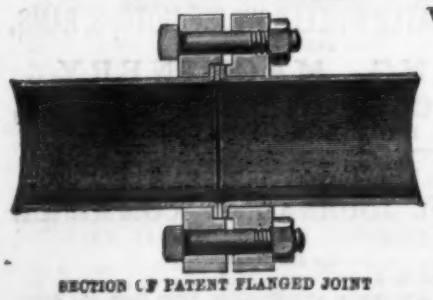
Light Lap-welded Wrought-iron and Steel Tubes

(SPECIALLY ADAPTED FOR MINES).

With Patent Flanged Joints (as illustrated) for the Conveyance of Water, Steam, and Air, at High and Low Pressures.

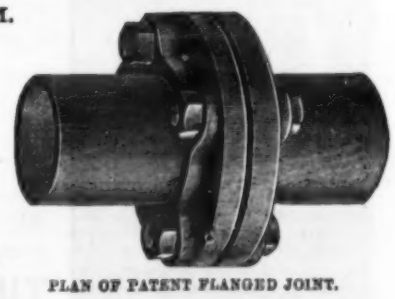
LAP-WELDED IRON AND STEEL BOILER TUBES

FOR LOCOMOTIVE, MARINE, AND OTHER MULTITUBULAR BOILERS.



SECTION OF PATENT FLANGED JOINT

STEEL & IRON PLATES FOR BOILERS, BRIDGES, &c.



PLAN OF PATENT FLANGED JOINT.

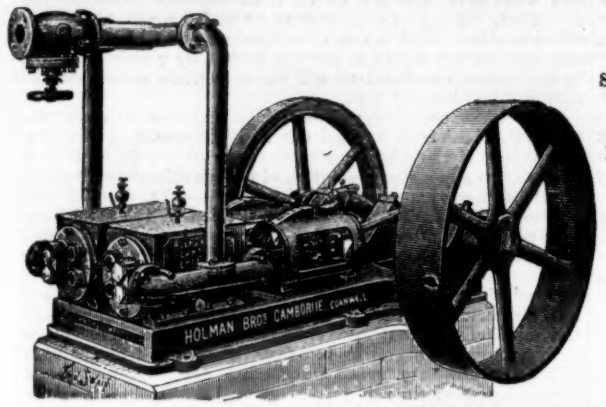
Head Offices: 41, OSWALD STREET, GLASGOW.

HOLMAN Bros., Camborne, Cornwall.

ESTABLISHED 1839.

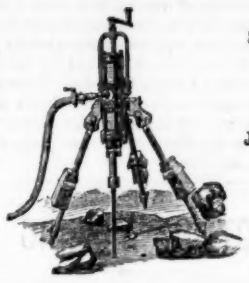
Patentees and Sole Makers of

"THE CORNISH" ROCK DRILL and "THE CORNISH" COMPRESSOR.



FIRST SILVER MEDAL, Highest Award, Mining Institute Contest, 1881.

Three Makers represented.



FIRST SILVER MEDAL Highest Award, Royal Cornwall Polytechnic Jubilee Exhibition Contest, 1882.

Five Makers represented.

AWARDED SILVER MEDAL INTERNATIONAL INVENTIONS EXHIBITION, 1885.

RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS**, equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES**, and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

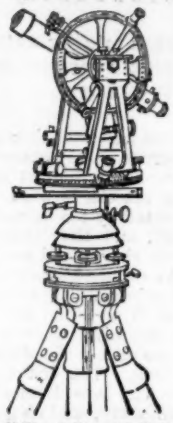
E timates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

London Offices: 7 and 9, LEADENHALL BUILDINGS, E.C.

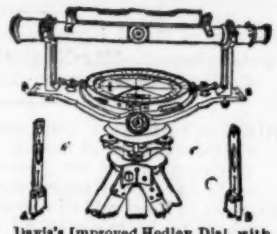
JOHN DAVIS AND SON,

ALL SAINTS WORKS, DERBY;

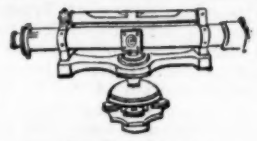
118, NEWGATE STREET, LONDON.



Transit Theodolite with Patent Hoffman Tripod Head, and Trough Compass.



Davis's Improved Hedley Dial, with Telescope and Sights Interchangeable and Patent Hoffman Tripod Head.



Dumpy Level with Hoffman Patent Tripod Head.

MINING, SURVEYING AND ENGINEERING INSTRUMENTS.

THEODOLITES. LEVELS.

Davis's Improved Hedley Miners' Dials with HOFFMAN PATENT TRIPOD HEAD.

AND ALL DESCRIPTIONS OF MATHEMATICAL AND MINING SURVEYING INSTRUMENTS.

Revised Illustrated Catalogues Free to any Part of the World.

SECTION (A) MATHEMATICAL DEPARTMENT AND SAFETY LAMPS

SECTION (B) ELECTRICAL DEPARTMENT.

Gold Medal Awarded Mining Exhibition, 1890.

"THE ENGINEERING TELEGRAPH CODE USED."

HENDERSON'S RAPID TRAVERSER

AWARDS: CRYSTAL PALACE, 1890; TASMANIA, 1891; KIMBERLEY, 1892.

CONCENTRATION.

The Clarkson-Stanfield Concentrator (Limited).

In the CLARKSON-STANFIELD process of Concentrating Refractory and Complex Ores no water is required; dust is reduced to a minimum; the loss of Mineral through water-borne Slimes is obviated.

OUTPUT ½ TO 2 TONS PER HOUR, ACCORDING TO SIZE OF MACHINE.

CONCENTRATOR TO BE SEEN IN OPERATION AT THE COMPANY'S ONLY ADDRESS

6, COLONIAL AVENUE, MINORIES, LONDON, E.

The Machine is superior to Sieves for Sizing Homogeneous Substances, such as Emery, Sand, and Powders, and may be used to great advantage in the preparation of Ochre.

N.B.—The owners of the Carndochan Mine, near Bala, North Wales, will, by arrangement, show their CLARKSON-STANFIELD plant working on a Refractory Low Grade Gold Ore.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

11402 William Phillips Thompson, 6, Lord Street, Liverpool.—Improvements in compound locomotives, compound steam engines, and other compound motors.—June 11.

11420 William Paitfield English, 186, Fleet Street, London.—Improvements in water tube steam generators.—June 11.

11442 Frederick William Golby, 36, Chancery Lane, London.—Improvements in slow combustion stoves.—June 12.

11476 Paul Joseph Pomré, 2', Southampton Buildings, Chancery Lane, London.—Improvements in steam boiler flues and tubes.—June 12.

11478 James Yale Johnson, 47, Lincoln's Inn Fields, London.—Improvements in apparatus for the electrolytical separation of precious metals from their ores or other materials containing them.—June 12.

11483 Raffaele Tranquille, 45, Southampton Buildings, Chancery Lane, London.—Improvements in locks for railway carriages.—June 12.

11493 William Henry Green, 38, Chancery Lane, London.—Improvements in gas motor engines.—June 12.

11498 Robert Cooke Sayer, 11, Clyde Road, Redland, Bristol.—Improvements in light railways.—June 13.

11501 Robert Deisler, 18, Alexanderstrasse, Berlin.—An improved draught regulator for locomotive engines.—June 13.

11512 John Basil Hope and Richard Thomas Briggs, Commercial Street, Halifax.—Improvements in and connected with feed-water apparatus for locomotive and other boilers.—June 13.

11561 Agar, Cross and Co., 62, St. Vincent Street, Glasgow.—Improvements in boiler furnaces.—June 14.

11637 William Phillips Thompson, 6, Lord Street, Liverpool.—Improvements in and relating to alkaline metals.—June 15.

SPECIFICATIONS PUBLISHED.

10,347, Kneen, furnaces, 1894; 14,008, Chenu, railway chairs, 1894; 14,737, Eaglen, steam boiler furnaces, 1894; 15,076, Sandillon, steam boilers, &c., 1894; 19,913, Galloway, steam boilers, 1894; 21,536, Richards, furnaces, 1894; 5221, Brauckmann, mining safety lamps, 1895.

The above specifications published may be had of Messrs. Rayner and Co., 37, Chancery Lane, London, at 10d. each, including postage.

WAIHI GOLD MINING COMPANY (LIMITED).—An extraordinary general meeting of the shareholders in this company was held on Monday, at the Cannon-street Hotel, the chair being occupied by Mr. Russell for the purpose of considering the advisability of confirming resolutions passed at a previous meeting authorising the issue of share warrants payable to bearer.—Mr. Russell moved the confirmation of the resolutions, which was seconded by Mr. H. J. Bristow, and carried unanimously.—The Chairman, in conclusion, read a cable just received from the property:—"During the present month the air pumps of the new cyanide plant have not worked satisfactorily, and have given constant trouble. The frost caused deposits of carbonate of lime, which affected the pipes and prevented the solutions working properly; from this cause the returns for the month are estimated at £8000. The defective pipes have been replaced by new. From to-day returns will be satisfactory."

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

Great Britain Coal Company (Limited).—Registered by W. Syers, 44, Horsell Road, Highbury, N., with a capital of £5,000 in £1 shares. Object: To acquire large quantities of coal and to retail the same to shareholders at a greatly reduced price. W. Syers is appointed managing director, with a salary of £100 per annum and a commission.

Welsh Consolidated Gold Fields (Limited).—Registered by Williams and Neville, 23, Austinfriars, E.C., with a capital of £5,00 in £1 shares. Object: To acquire, by purchase or otherwise, any mines, mining rights, &c., in Wales or elsewhere, and to develop and work the same. Most of the regulations contained in Table A apply.

Nelly and Pioneer Reefs Gold Mining Company (Limited).—Registered June 11 by Julius and Thomas, 15, Finsbury Circus, E.C. Capital £55,000, in £1 shares. Objects: To acquire, by purchase or otherwise, certain freehold farms in Mashonaland, the same being the property of the Mashonaland Agency (Limited), and also certain mines, mining, water, and other rights, grants, leases, claims, concessions, &c., in Mashonaland, held by the same company under the mining regulations of the British South Africa Company; with a view to the above acquisition to adopt and carry into effect agreements expressed to be made between the Mashonaland Agency (Limited), and the British South Africa Company, of the first part, and this company of the second part respectively; and to develop and turn to account the above-mentioned properties in such manner as the company shall see fit.

Gilpin Gold (Limited).—Registered by W. T. Hick, 2, Church Street, Clement's Lane, E.C., with a capital of £90,000 in 10s. shares. Object: To adopt and carry into effect an agreement, made June 15, between A. P. Morrison of the one part and F. Sidney, on behalf of this company, of the other part, for the acquisition, by purchase or otherwise, of the Cashier Mine, and the Electric Republic and South Brooklyn lode mining claims, in Gilpin County, State of Colorado, U.S.A., and to carry on the business of a mining, milling, smelting, and metallurgical company in all its branches.

Hampton Gold Hill Mines (Limited).—Registered by Snell, Son and Greenip, 1 and 2, George Street, E.C., with a capital of £200,000, in 10s. shares. Object: To adopt and carry into effect an agreement expressed to be made between the New Gold Hills Company (Limited) (and the liquidator thereof), of the one part, and this company of the other part, for the acquisition of the property of the said New Gold Hills Company (Limited), and also to enter into arrangements with the Hampton Plains Exploration Company (Limited), for the purpose of exploring, developing, and, if thought fit, acquiring certain blocks of mineral land situate on the property of the Hampton Plains Estate (Limited), in Western Australia; and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches.

Golden Wealth (Limited).—Registered June 20, by Turner, Smith, and Co., Carey Street, W.C. Capital £50,000 in 10s. shares. Objects: To carry on the general business of a financial agency, and to undertake, assist, and participate in financial, commercial, and industrial undertakings and operations, in the United Kingdom, South Africa, Western Australia, or elsewhere.

Beaconsfield Diamond Mining Company (Limited).—Registered by Markby Stewart, and Co., 57, Coleman Street, E.C., with a capital of £35,000, in £1 shares. Object: To adopt and carry into effect the agreements (referred to in Clause 6 of the company's Articles of Association) expressed to be made (1) between Ellen A. Lippratt and A. B. L. Conyngham of the one part, and this company of the other part, and (2) between A. B. L. Conyngham, S. Stone, and R. Watson, of the first part and this company of the second part, and to explore, work, and generally turn to account the properties mentioned in the said agreements.

MR. A. E. M. DAVIES has vacated his offices at 5, Crooked-lane, E.C., and has removed to 24, Rood-lane, E.C.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

**** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Coal, July 2 (*Ballinasloe, Ireland*).—For supply of 600 tons of best gas coal, to be delivered to the Ballinasloe Town Commissioners free at the canal harbour during July, for the Ballinasloe Town Commissioners. Tenders, addressed the Chairman Town Commissioners, Ballinasloe, will be considered on July 2. Mr. Edward Steacie, town clerk.

Railway Stores, July 2 (*London, E.C.*).—For the supply of the following stores for the Bombay, Baroda, and Central India Railway Company—viz. (1) carriage and wagon tyres; (2) cast-iron pot sleepers and fittings; (3) plate girder bridges; (4) steel fishbolts, nuts, and washers; (5) steel fishplates; (6) steel rails.

Valves, July 2 (*Radcliffe*).—For the supply and fitting of sundry valves and other ironwork at the sewage works, Radcliffe, for the Radcliffe District Council. For plans and specifications apply to the Surveyor, Council offices, Radcliffe. Sealed and endorsed tenders to be sent in by July 2.

Sinking Well, July 29 (*Alnwick Moor*).—For sinking a well on Alnwick Moor. Particulars can be obtained at the office of Mr. William T. Hindmarsh, clerk of the council, 26, Bondgate Without, Alnwick, and tenders will be received by the clerk by July 29.

Sinking Well, July 8 (*Leamington*).—For sinking a well 6 feet in diameter to a minimum depth of 100 feet, but probably to a depth of 130 feet (New Red Sandstone formation) for the Corporation. Specification may be seen at the office of the engineer, Mr. W. de Normanville, at the Town Hall, where also forms of tender may be obtained.

Earthwork, July 23 (*Cairo*).—Tenders will be received at the Secretariat of the Egyptian Railway Administration at Cairo up to July 23 at noon for earthwork, masonry, pitching, buildings, and other works for the line from Kafr-Zyat to Chabas. Payments are guaranteed, and will be made by the Commission of the Public Debt, Egypt. Conditions, general and technical, and description of works, may be seen during office hours on application to Lieutenant-Colonel Western, Broadway Chambers, Westminster, S.W.

Gas Coal, July 31 (*Wallingford*).—For the supply for one year from August 12 of about 900 tons of best screened gas coal, to be delivered free at the railway station, at Wallingford, in such quantities and at such times as the company may require, for the Wallingford Gas Light and Coke Company. Sealed tenders, endorsed "Tender for Gas Coal," to be delivered on or before July 31.

TOO MUCH STRESS cannot be laid on the fact that in the whirl of unnatural excitement, and in the struggle for existence in this generation, no attention whatever is vouchsafed to the most ordinary rules of health. When the muscles become relaxed, the nerves over-sensitive and delicately strung, and the brain wearies at the slightest task, these symptoms are part of Nature's warnings that the delicate organism of the human frame is out of gear. In most cases a gentle stimulant and mild restorative is all that is required to impart fresh vitality to the jaded nerves, and it is a well-known fact that a few doses of Holloway's Pills work wonders and restore the lost tone of the nervous system.

PARIS LETTER.

[FROM OUR OWN CORRESPONDENT.]

Recovery of Rand investments.—Fresh mining enterprise abroad.—The English phosphate concessions.—Collapse of a copper mining enterprise.

THE South African mining share market has come through the recent ordeal of consular admonition and Parliamentary questionings much more successfully than at one time could have been hoped for. The attacks levelled at investments in Rand gold mining were directed by too inexperienced a hand to be taken at all seriously, and they were so evidently animated by selfish motives that they could not do otherwise than defeat their own ends. As an immediate result of this campaign against Transvaal gold mining, the public is showing a greater disposition to take up Rand scrip, and all first-class shares are being dealt in more extensively than for a long time past. Investors have, indeed become more fixed upon the exact position of South African mining. The criticisms on the vague statements that have been put into circulation lately have thrown some light upon the industry, and its good and bad points have been brought into clear relief. The opinions of Sir Edgar Vincent and other authorities on Rand mining have been freely published, and in this way a strong counter-blast has been given to the weak pipings of detractors. It is considered an admirable thing that French capital should take a little more active part in the development of the world's resources, instead of lying at home locked-up in the coffers of too-thrifty owners. If France is to make good use of her colonies, and secure profit out of the gold fields of Madagascar, the phosphate deposits of Tunis and Algeria, and the coal mines of Tonkin, the small capitalist must be encouraged to place his money abroad, and it is for this reason that economists are doing everything in their power to favour the new spirit of foreign investment; while the Government, with a paternal regard that shows itself in the most private affairs of the citizen, is very anxious to keep the money at home. But even the Government is unable to stem the growing tide of investment in South African mining, and, to put itself on the safe side, it has resolved to send a commissioner to the Rand to enquire into the auriferous resources of the district. It is probable that the mining engineer chosen for this work will be M. Robellaz, of the Paris School of Mines. It is hardly likely that he will be able to add much to what is already known of the Transvaal gold field, but, in any event, his report, if it bears out all previous investigations, will put an end to the vapourings of that class of detractors who are alarmed at so much French capital being placed in the control of English companies.

There is no doubt that a very strong feeling is manifesting itself at the present moment in favour of a more active participation in foreign enterprises. As the Transvaal mines are the only investment that seems to offer any real guarantee of economical working and remunerative returns, most of the available capital is being diverted into this channel, and it is now sought to relieve investors of their dependance upon English companies as much as possible, by devising ways and means of taking over auriferous properties and placing them under French management. It is not at all certain that this policy will succeed to any large extent. In spite of a natural antipathy to be made subservient to English enterprise, the great bulk of investors have unbounded faith in the honesty of the Rand mining concerns, and they will no doubt prefer to leave their money where it is, to placing it in the hands of French companies who will not have given any tangible proof of their dividend-paying capacity. Nevertheless, if the capitalists who are now making investigations with a view of floating companies for the working of properties on the Rand find it advisable to carry out their schemes, there is no doubt that plenty of money will be forthcoming to start operations upon a fairly large scale; and, in the event of good profits being realised, a great impetus will certainly be given to the investment of French capital in purely native concerns. It is expected that the floating of such companies will be facilitated by the new law that is likely to be passed very soon to authorise the issue of 25 franc shares; but it is evident that such a measure will be of still greater benefit to the English companies, whose shares will thus be officially quoted in Paris instead of being dealt in, for the most part, by outside brokers. It is not, however, exclusively in the Transvaal mines that the new spirit of investment is showing itself. A good deal of interest is being taken in the Westralian mines, but, so far, the business done in this direction is not large. Yet it is evident that Parisian capitalists are beginning to look to Westralia as a possible outlet for remunerative investment in the future, and directly reports from that district become more favourable, the shares will be taken up with some freedom. To the Russian gold fields, also, increasing attention is being given, and Paris is co-operating with St. Petersburg in the carrying out of several important enterprises in that country.

The question of phosphates which will come up for discussion in the Chamber of Deputies in the course of a few days is causing a good deal of sensation in certain quarters, where it is feared that the concession to the English companies, if upheld, will make French agriculturists entirely dependant upon the English owners for their supplies of fertilising mineral. The deposits are situated in Tebessa, in the department of Constantine, in Algeria, and they contain from 62 to 68 per cent. of phosphate of lime, as well as from 6 to 8 per cent. of an organic substance that is said to double the value of the phosphates, and make them the richest in the world. It is stated that a first demand for a concession of these mines came from a French capitalist, who offered to pay a royalty of 1 franc per ton. The Prefecture of Constantine is said to have refused to entertain this proposal, and to have subsequently granted the concession to a woman in return for a royalty of 25 centimes, and she then made it over to an English company, who offered to pay 2·50 francs a ton up to 10,000 tons, beyond which the royalty would diminish in ratio to the augmented yield down to a minimum of 50 centimes. As the Tebessa concession is estimated to contain 300,000,000 tons of phosphates the French have become alarmed at its possession by an English company, the more so as several other mines are being worked with English capital, and only one concession is in the hands of French owners. Directly the matter began to attract public attention the Governor-General of Algeria instituted an enquiry, during the course of which it was estimated that the English concessions contained altogether no less than 3,000,000,000 tons of phosphates. Not only are the mines remarkably rich, but the mineral can be extracted at a very small cost. Some of the mines are exploited by surface workings, and the principal deposit has an area of more than 8000 acres, and a thickness of 4·50 metres. Other concessions are worked by adits, and have an area of 5000 acres, and a thickness of 3 metres. Up to the present moment the exportation of the mineral has been restricted by the fact that the only means of transport is the railway from Bone to Guelma. Nevertheless, 600,000 tons have been extracted this year, and when the transport facilities are improved, the annual output will reach some millions of tons. The Deputies who have taken this matter up pretend that the concessions have been acquired by fraud, and they insist that an official enquiry should be made in order to allow of the Government revoking, if possible, the concessions and handing them over to French companies.

In 1882 a company was formed at Lyons under the title of the Société Française des Mines de Cuivre with a view of working some copper mines in the Department of the Var and in Algeria. The enterprise proved to be a disastrous one, and the company went into liquidation. Considering that the failure was due to bad management, the shareholders made a claim for the return of the whole of the money that they had subscribed, and, at the same time, the liquidators demanded that, on account of certain irregularities, the company should be dissolved and the promoters made to clear off the entire liabilities. Judgment has just been delivered by the Court of Lyons, under which the directors are to return to the shareholders all the sums that have been paid above 250 francs, while the promoters and the directors are to pay the liabilities in a proportion to be agreed upon by themselves.

THE EFFECT OF ARSENIC ON STEEL.

By JOHN EDWARD STEAD, F.I.C.

(*Concluded from Page* 726.)

APPENDIX I.

Determination of Arsenic in Iron Ores, and in Steel and Pig Iron.

OF all the methods for separating arsenic from iron solutions, the process of distilling with hydrochloric acid and ferrous chloride takes the first position.

It has been the general practice, I believe, to precipitate the arsenic as sulphide with hydric sulphide from the distillate, and either weigh the pure sulphide, after drying at 212° Fahr., or to oxidise it with bromine and hydrochloric acid, and then precipitate the arsenic acid with ammonia and magnesia solution, and weigh the precipitate produced. This process, although accurate, if carefully done, is rather tedious, and takes at least 24 hours to complete.

After many trials and experiments, I have found that if the distillation is conducted in a special manner, the whole of the arsenic may be obtained in the distillate, unaccompanied with any traces of chloride of iron, and that if the hydrochloric acid is nearly neutralised with ammonia, and finally completely neutralised with acid carbonate of soda, the arsenic can be determined volumetrically with a standard solution of iodine, using starch solution as an indicator.

The process of distillation with ferrous chloride and titration of the distillate with iodine solution was, I believe, first proposed by Emil Fischer; but as the description of the method given in Crookes' "Select Methods of Chemical Analysis" contained only the general principles on which it was worked, I found it necessary to work out the details in my own laboratory, and I think when the elaborated method has been thoroughly explained, it will be admitted that a more simple and accurate device for the determination of small quantities of arsenic it will be impossible to conceive.

Standard Solutions.

ARSENIOUS OXIDE.

To prepare this solution, weigh off 0·66 grammes (0·5 grammes metallic arsenic) of pure arsenious acid in fine powder, and place it in a flask, and add 2 grammes of carbonate of soda and 100 c.c. boiling distilled water, and boil the liquid till all the arsenious oxide has dissolved. Cool, and add 2 grammes of acid carbonate of soda, and dilute to one litre:—

1000 c.c. = 0·5 gramme arsenic.
1 c.c. = 0·0005 " "

IODINE SOLUTION,

Dissolve 1·275 grammes pure iodine in 2 grammes of potassium iodide, and dilute the solution to 1 litre, and standardise it by titrating 20 c.c. of the arsenious solution. If the iodine has been pure, 20 c.c. of the solution should be required to just produce a permanent blue colouration of iodine of starch.

1000 c.c. of this solution = 0·5 grammes arsenic.
1 c.c. " " = 0·0005 " "

These solutions keep fairly well without alteration for several months. It is advisable, however, to periodically ascertain the value of the iodine by titrating 20 or 30 c.c. of the arsenic solution.

STARCH SOLUTION.

This is prepared by thoroughly well boiling 1 gramme of potato starch with half a litre of water, and after cooling the solution, the clear liquid is decanted off and the sediment rejected.

Steel.

From 1 to 50 grammes of the steel in drillings are introduced into a 30 ounce flask, and a sufficient quantity of equal parts of strong hydrochloric acid and water is added to dissolve it. Into the mouth of the flask an indiarubber cork carrying a safety tube, and a tube to convey the gas evolved into the absorption spiral tubes of Winkler containing a strong saturated solution of bromine in water.

This tube is filled to one-third of its length with the solution, and about ½ c.c. of free bromine is run in to replace the bromine which is consumed or carried out with the passing gas.

The contents of the flask are now gently heated to such a degree that a steady but not rapid current of gas passes through the bromine solution.

In about one hour the whole of the steel will be dissolved, and when no more evolution of hydrogen can be observed, the liquid in the flask is well boiled, so as to completely drive all the gas into and through the bromine solution.

The absorption tube is now disconnected, and the bromine solution containing that part of the arsenic which has passed off as gas is rinsed out into a small 100 c.c. beaker, and the excess of bromine is gently boiled off, and the clear colourless solution is poured into the flask. About ½ gramme of zinc sulphide is now dropped into the iron solution, and the contents are violently shaken for about three minutes, by which time the whole of the arsenic will be in the insoluble state, partly as sulphide and partly as a black precipitate of possibly free arsenic and arsenide of iron.

It has been found that violent agitation for a few minutes is quite as efficacious in effecting the complete separation of arsenic sulphide as by the older methods of passing a current of carbonic acid through the solution to remove the excess of hydric sulphide, or by allowing it to stand 10 or 20 hours to settle out.

The insoluble precipitate is now rapidly filtered through a smooth filter paper, and the flask is rinsed with cold distilled water. The precipitate usually does not adhere to the filter, and in such cases the paper is spread out flat upon a porcelain slab, and the arsenic compounds are rinsed off with a fine jet of hot water into a small beaker. The precipitate is now dissolved in bromine water and a drop or two of hydrochloric acid.*

The bromine solution now containing all the arsenic is gently boiled to expel the bromine, and it is then poured into a 10 ounce retort and is distilled with ferrous chloride and hydrochloric acid.

The apparatus I use consists of an ordinary Liebig's condenser, but the retort has its tubulure bent to an angle of about 150°.

The object of bending the tube of the retort is to enable it to be placed at such an angle so that the greater part of the tubulure when in position may incline in the direction of the bulb of the retort, leaving in this way an extended space where any chloride of iron which is always mechanically carried off with the acid vapours may condense and run back. By gently distilling, by this device, the distillate will never contain more than the very slightest trace of iron.

The solution containing the arsenic having been run into the retort, the beaker is washed out and the washings are also poured in. If the solution is much above 30 c.c. in bulk, it is advisable to add a strong solution of ferrous chloride containing about half a gramme of iron in the ferrous state, and for this purpose nothing answers so well as a portion of the steel solution remaining after separating the arsenic, which is first well boiled to free it from hydric sulphide, and should contain about 10 per cent. of soluble iron as ferrous chloride. Five c.c. of this solution will contain the necessary amount of iron to add to the retort. After adding the chloride, it is best to boil down the solution to about 20 c.c. before adding any hydrochloric acid, taking care, of course, to collect what liquid distils over. When the necessary concentration has been effected, 20 c.c. strong hydrochloric acid is run in, and the distillation is continued till all excepting about 10 c.c. has passed over. A further quantity of 20 c.c. mixed with 5 c.c. of water is run in, and this is all distilled over. At this point, as a rule, all the arsenic will have passed into the distillate, but it is advisable to make quite certain, and to add a third portion of hydrochloric acid and water, and to distil it over.

If the distillation has not been forced, the distillate will be quite colourless.

The arsenic in the distillate will exist as arsenious chloride, accompanied with a large excess of hydrochloric acid.

A drop of litmus is put into this solution, and strong ammonia liquor is run in till an alkaline reaction is indicated. It is now made slightly acid with a few drops of hydrochloric acid, and a slight excess of solid acid carbonate of soda is dropped in. The contents of the flask are now cooled by a stream of water from the tap, and after adding a perfectly clear solution of soluble starch, the standard iodine is run in from a burette till a deep permanent blue colouration is produced.

If the steel or iron contains much arsenic, a smaller quantity (say) 1 or 2 grammes, may be dissolved in nitric acid of 1·20 specific gravity, and the solution evaporated to dryness, the residue being dissolved in hydrochloric acid, and the solution transferred to the retort, and distilled directly with ferrous chloride and hydrochloric acid, care being taken that the distillation is not forced so as to avoid any of the iron solution passing over into the distillate.

Pig Iron.

In testing pig-irons, they may be dissolved in nitric acid and evaporated to dryness, or be treated in a flask with hydrochloric acid exactly in the manner described above, but it is advisable, if the latter method is adopted, after treating the voluminous mass of silica and graphite, &c., with bromine and hydrochloric acid, to filter off the insoluble matter and distil the clear solution.

Iron Ores.

In testing ores, it is only necessary to place the ore directly into the retort, and distil at once with hydrochloric acid and ferrous chloride, taking care to place a few pieces of fire-brick also in the vessel, to avoid the "jumping" of the liquid.

If the ore contains much peroxide of manganese, it is advisable to dissolve it in a separate vessel to liberate and expel the chlorine, and then to transfer it into the retort.

The time taken to test iron or steel need not exceed two hours, and for iron or other ores not much more than half an hour.

It is quite possible to accurately determine as small a quantity as 0·002 per cent. arsenic by this method.

When dissolving steels in dilute hydrochloric acid, if there is no rust on the sample or ferric chloride present in the hydrochloric acid, and the presence of air is carefully avoided, as a rule only about one-tenth of the total arsenic present passes off with the gas.

When solution is effected entirely in the cold, a very much less quantity is evolved, and a very slight amount passes into the solution. As an example, an alloy containing 4·125 per cent. arsenic dissolved in dilute hydrochloric acid in the cold gave the following results:—

	Per Cent.
Evolved as gas	0·035
Found in the solution	0·125
Remaining insoluble as a dense black residue	3·965
	4·125

All my determinations for arsenic in the accompanying paper on "Arsenic in Steel" were made by the method just described. Mr. Harbord, however, used Platten's volumetric method.

This method was described by Mr. Platten in a paper read before the Society of Chemical Industry, April 16, 1894, and depends on the fact that when sulphide of arsenic (obtained by treating the distillate with sulphuretted hydrogen) is boiled with pure water, it is decomposed into sulphuretted hydrogen, which escapes, and arsenious oxide, which remains in solution. This solution is then titrated with iodine in the usual way.

That both methods are capable of giving accurate results is proved by the closely agreeing determinations of arsenic by Mr. Harbord and myself when operating on identical samples.

* If the precipitate should happen to stick pertinaciously to the filter it is dissolved off with bromine water and hydrochloric acid, and the filter is carefully washed with hot water to remove all traces of arsenic. If the filter is smooth and the precipitate coagulated into small masses, as it almost invariably is, it never adheres to the paper and is readily washed off.

BARIMA DEVELOPMENT SYNDICATE.—"We are informed," says the *Demerara Daily Chronicle* of the 12th inst., "that a cable was received on 5th inst, at the offices of the Barima Development Syndicate, from Messrs. Smith, Payne, and Smiths, London, informing the directors that the sum of £2500 had been duly lodged with them, under the terms of the arrangement with the London capitalists. Enquiries we have made have assured us that the statements given publicity to in certain quarters yesterday, regarding the syndicate's property, are absolutely false. The Commissioner of Mines has not yet investigated the merits of the dispute that has arisen respecting the gold recently seized at the instance of Mr. Menzies, and, therefore, is not in a position to express any opinion in regard thereto."

MESSRS. ARMSTRONG AND CO. are prepared to pay coupon No. 10 guaranteed by the Government of British Columbia, falling due July 1 next, on the First Mortgage Debenture Bonds of the Shuswap and Okanagon Railway. Coupons must be left three clear days for verification.

THE RAND CONGLOMERATE.

A Paper by M. DRAPER.

(*Concluded from page 743.*)

The Elephant Rock.

THE next series to be considered is that most important and extensive group of limestone and silicious beds known under various names in different parts of the country, and locally called the Elephant rock, or dolomite. The earlier geologists who visited this part of the country made no mention of this series, and Schenck was the first to identify it as a dolomitic limestone, consisting of about equal quantities of carbonates of lime and magnesia, with a small percentage of silica. Such is the composition of the main body of the rock, though bands of silica in the form of hornstone are interstratified with the more calcareous rock, especially in the upper layers, which in some cases consist almost entirely of silicious matter. The rock is, when newly fractured, of a deep grey colour, with a bluish tinge. It weathers into many fantastic and curious shapes, and in most instances, the deeply-weathered surfaces of the rock resemble the dried hide of an elephant; hence the name bestowed upon it by the Dutch. "Olphant Klip," which we translate into "Elephant rock." Dr. Schenck called it blue-black dolomitic limestone. Dr. Molengraaff named it Malmani limestone, from its great development in that district. Here, in the Transvaal, its position in that geological sequence is immediately overlying the upper conglomerate bed known as the Black reef. It is undoubtedly younger than the Bokkeveld beds, though, as previously stated, no trace of the latter has been discovered in this part of the country. The Elephant rock series is unconformable to the underlying conglomerate series, though unconformability is not very marked in this part of the country. It is very extensive, and covers a great area in the Transvaal, Bechuanaland, and the West Coast north of the Orange river, Schenck mentions its occurrence on the Hanami plateau. Galton describes a similar rock in Damaraland, at Ochikoto, and other places. I am informed that it is in the rock in which the Congo caves have been excavated, and it occupies a large portion of this country, in the districts of Lydenburg, Middleburg, Zoutpansberg, Waterberg, and Marico. It covers large portions of country; but what I specially want to bring to your notice is its connection with the underlying Table Mountain series, and the overlying quartzites of the Gats Rand and Magaliesberg.

Since I commenced the paper, I discovered a paragraph in the local mining journal, in which the following question is asked:—"Is the dolomitic limestone, which occupies the same relative position in the gold beds of Johannesburg, Krugersdorp, Malmani, and Lydenburg one continuous bed deposited at the same time?" My answer to this question is decidedly "Yes!"

The Rand Formation.

The Elephant rock or dolomitic limestone is undoubtedly all of the same age, and is invariably found resting either upon the Table mountain sandstone series or conglomerate, or the Malmesbury beds underneath them. Following the line of Elephant rock most familiar to us, we find it dipping southwards and running roughly parallel with the conglomerate series along the Klip river, past Wonderfontein to the eye of the Mooi river, and continuing on through the districts of Potchefstroom and Klerksdorp until it is lost, together with the Table mountain sandstone, which it accompanies, under the horizontal sandstones of the coal beds of the Orange Free State. This represents the south dip of the primitive area which lies between the Rand and Pretoria, the Elephant rock, dipping north, continues, though covered over by the more recent sedimentary deposits in parts, through the district of Rustenburg, and on past Ventersdad to Hartebeestefontein, extending northwards into the districts of Lichtenburg and Malmani. This is the northern dip of the great anticline. Yet another repetition of this series, and dipping northward lies under the south boundary of the Gats Rand, overlying the conglomerate of the Vaal river and Orange Free State. This represents the north dip of the great syncline whose axis is situated in the Gats Rand. There can be reasonable doubt on this point, that the dolomitic limestone in all portions of the country is the continuation of the great bed which originally covered the greater portion of this part of South Africa, and which in some parts, as in Lydenburg, is still found lying in a horizontal position, while here it is folded together with the underlying Table mountain sandstone and the overlying quartzite of the Gats Rand and Magaliesburg, into a great anticlinal and synclinal fold.

The Calcareous Caves.

Time will not allow me to describe in detail the principal characteristics of this most interesting rock. But I would wish to remark, in passing, that the numerous caverns, underground watercourses, and sinkholes which are found occurring in it, are of very great interest, showing the alterations which occur, even in rocks so hard and dense as the Elephant rock by the silent and continued action of rain water, which decomposes the calcareous portion of the rock, forms great caves, many of them lined with most beautiful incrustations on the walls, and thousands of pendants from the roof, and columns rising from the floor. That many of these caverns have lately been inhabited by wild animals has been demonstrated by an examination of the earthy matter which formed the floor of these caves, and which has yielded a large quantity of animal remains. Still these must not be considered as part of the rock, or as giving any other evidence of its age. They only show that these caves are of comparatively ancient date, and that they formed the places of refuge for the animals existing at that time.

Recent Primary Rocks.

I will now proceed to discuss the leading features of the most recent system of the primary rocks, so far as we know at present. Originally the series was called the quartzites of the Zwartberg, Zuurberg, and Witteberg, because it was found so well developed on those mountain ranges where it consisted principally of white or light-columned quartzites, in which fossils of Carboniferous type have been discovered. This series is well developed at Grahamstown and the Kowie Mouth, where it is highly tilted—almost perpendicular—and contains beds of graphite. Here I have identified it in the quartzites of the Magaliesberg and Gats Rand, two areas of quartzite which, I take it, are portions of one great contemporaneous bed disconnected in the same way as the underlying system. These quartzites appear to be slightly uncomformable to the underlying Elephant rock, and in some parts of the country—notably, in the Gats Rand—they have been greatly disturbed by igneous intrusions. The Magaliesberg range presents a typical example of a range formed by upheaval from below in the regularity of dips of its strata and its great continuity. It forms a perfect barrier between the countries lying west and south of it, interserted at a few places by gaps formed by the streams which flow through them, and what are utilised for roadways. Though fossil evidence is scarce in these hard and dense quartzites, sufficient specimens have been discovered to place this system in the Carboniferous period. The various beds of so-called alluvial gold found in the vicinity of Rietfontein and Vogelstruisfontein, the Blauwbank and other auriferous veins in the neighbourhood, and the recently-opened quartz reefs at the Western Rand, are all situated in the same range, which forms the lowest portion of the quartzite series of the Transvaal.

The Folding of the Conglomerate.

In the foregoing I have endeavoured to give a brief description of the leading features of the Primary systems. I shall now conclude this paper with a cursory glance at the disturbances which have occurred in time past, and which have effected the alterations in the original deposition of the strata, and placed them in their present position, and in order to do this I must return to the earlier periods, the first of which is the Malmesbury beds and Lydenburg beds. These have been tilted and disturbed until the strata is vertical or highly inclined, and in some instances overthrown. Great, indeed, must have been the process at work to fold and pucker such a great mass of superincumbent strata. But not only did the granite in its endeavour to force its way through the crust, tilt and overturn the strata, but great masses of rock were dissevered from the main body, and these are now found as isolated patches surmounted by granite. The granite also intruded into the main mass in many parts, and completely metamorphosed the original rock, forming new mineral combinations. This great disturbance was succeeded by a period of long duration, during which the upturned edges of the Malmesbury and Lydenburg beds were planed off by the action of oceanic waves, and the débris from their wash was utilised for building up the now overlying Table mountain limestone series, consisting of coarse gritty sandstones and conglomerate beds.

How it was Formed.

As stated in the previous portion of this paper, no rock at present is known in South Africa the destruction of which would produce similar conglomerate beds to these now existing. Still, they must have been built up of older rocks, and as their rounded form would denote that they had travelled a great distance, the pebble beds of this part have been derived from older rocks now buried under the Indian or Atlantic Ocean. Ripple-marking is plentiful in the sandstones of the conglomerate, and these ripples generally show an east or west flow of the waters which constructed them. This evidence, though slight, is worthy of record. Following the deposition of the Table mountain sandstone came the construction of the Bokkeveld beds of marine origin, as testified by their forms of extinct life of Devonian type, and by whose means the true geological period can be identified and recognised as similar to the Upper Devonian of Europe. This period being once fixed, it is no stretch of imagination to suppose that the Table mountain sandstone series is Lower Devonian, agreeing as it does with the Old Red Sandstone of Scotland. But the Bokkeveld beds appear not to have been deposited in the Transvaal, or, at any rate, they have not been identified; and consequently we can only reason from the similarity of the conglomerate of this part and those in the Cape Colony, that they belong to the same age. This evidence is, however, quite sufficient for those who have had opportunities of studying this system in different parts of South Africa, and they agree upon the point.

An Unique Rock.

The Elephant rock is the next system in superposition, and in this we have to deal with a rock so totally different from any of the preceding that we must come to the conclusion that it was formed under vastly different conditions to any of the former, consisting almost entirely of carbonate of lime and carbonate of magnesia, with bands or layers of silica—a dense, fine-grained, hard calcareous rock, containing, so far as we know, no sign of a fossil. How could it have been formed? Is it the result of hydro-thermal action on a vast scale? Is there any other rock system in the world similar to it? So far as I have been able to learn, I must answer, No. Succeeding the Devonian period in all parts of the world, there appears to have been a period of limestone-making, when the water held a larger quantity of calcareous matter in solution than at any previous time. But the limestones of other parts of the world are totally different from these. They contain an abundant fauna. Life teemed in the lime-laden water of the time. The mountain limestones of Europe and America bear witness to the extremely abundant species of marine creatures which lived in the waters; but our limestone shows no trace of any living thing, either in the more calcareous beds or in the silicious bands, where spicules of sponges or the remains of minute organisms were expected to be found. The mass of our Elephant rock is many thousands of feet thick, and extending over a very wide area; so that by whatever process it was formed, it was a very lengthy one, and it must have taken ages to construct such a vast thickness of beds. Oscillations of the surface, no doubt, occurred during the deposition of the Elephant rock and its overlying quartzites, as we find a certain amount of unconformity existing between these systems. The Elephant rock gradually becomes more silicious in its upper beds, and ends abruptly, the flagstones of the Pretoria hills and the quartzites of the Gats Rand lying upon it without any graduation. The alteration from Elephant rock to quartzites and flagstone is sudden, showing that the limestone-forming period terminated abruptly, and was succeeded by the deposition of the fine sediments which form the flagstones, and coarser kind of sand which has since been metamorphosed into quartzite. This system is the last of one of the Primaries, and as it does not present any very distinctive features, I shall leave it, merely remarking that it has yielded fossils of Carboniferous type, though no coal has yet been discovered in its strata.

Formation of the Rand Beds.

Finally, I would now call your attention to the great earth movements which have placed the conglomerates of the Rand in their present position, tilting them in such a manner that they are within the reach of the miner's pick. In the early part of this paper I defined the position of the Primary system running parallel with the shore nearly round the whole coast line. Whatever conglomerate beds existed along the coast were exposed by the removal of the superincumbent strata by denudation, and they show but slight traces of disturbance; in some instances they are quite horizontal. In this part of the country, however, such is not the case. Our series is tilted to an angle of at least 30° to 35°, and this has been brought about by the intrusion of a great mass of syenitic granite, which is now found occupying the axis of the great anticline between here and Pretoria. The overlying Elephant rock and quartzites of the Gats Rand and Magaliesberg were included in this great movement, which must have been posterior to their deposition. But while this was happening a similar and contemporaneous intrusion of granite occurred in the area of which Vredefort is the centre, and these two forces acting together and thrusting the strata asunder, so tilted the rocks northward, forming the Magaliesberg range—southward, forming the Witwatersrand and Gats Rand—while, from the southern side the conglomerate beds of the Vaal river, together with the Elephant rock and Gats Rand quartzites were thrust northward, forming a great syncline.

South African Geology.

Such is my interpretation of the positions of the Primary systems of South Africa. I have been able only to glance at the geology of the vast area. A good deal has been unsaid, and I fear that I have but imperfectly described my subject. My endeavour has been to give my hearers a short history of the geology of this country as revealed to me during my travels, which have extended over a very large portion of the country I have described. But in completing this too brief description, I have been greatly assisted by the writings of those earnest men who have in past times, under great difficulties and dangers, explored the country where roads were scarce and railways unknown. I have no doubt that there are many in this room to-night who will find fault with my geology, and who will be disposed to discuss it in detail. I shall be only too pleased to give these gentlemen every opportunity to criticise me as severely as they please. Only by discussion can one hope to arrive at the truth. We are all working in a new field. The geology of South Africa has still to be written. We have to do our share towards it, and I only hope that everyone who is in doubt upon the occurrence of any rock system or wishes for enlightenment on any part of my paper, or who differs from me, will not be afraid to speak out and give us his views on the subject.

Sections and drawings referred to in this paper:—

1. From the summit of Table Mountain, Cape Town, to sea level at Green Point.
2. Ideal section of strata deposited in a hollow or basin in older rocks.
3. Ideal section of basin formed by tilting of the strata round the edges.
4. Section at Ceres, showing position of the Bokkeveld beds with regard to the underlying series.
5. Homalonotus Herschelli, and other Upper Devonian fossils.

Map of South Africa, showing the geographical position of the primary system.

MINING NOTES FROM JOHANNESBURG.

By H. BUSH, M.E.

(*Cabled Weekly*).

Molyneux Mines, Heidelburg, S.A.R.

The new scheme for the reconstruction and amalgamation of the Molyneux and Molyneux Extension has now been completed, and the present property now consists of over 520 claims, situate upon the farm Botha's kraal district, Heidelburg, and from all stratagraphical appearances there can be little doubt that the claims are situated upon the well-known Nigel series of reefs. There are opened up upon the Molyneux claims two reefs lying between a sandstone hanging-wall and a slate footwall. The reefs make a very rich ore body of 2 feet in thickness, and are divided by a thin sandstone layer. The angle of the reef averages about 30°, which, coupled with the soft footwall, offers every facility for cheap mining on a large scale. The assays from the two sections run as follows:—Top section (small pebble conglomerate), 15 dwts. per ton; bottom section (large pebble conglomerate), 1 ounce upwards; in fact, the assays from this bottom section have given up to 20 ounces per ton. On the old Molyneux property there are three shafts sunk on the reef, averaging about 200 feet each in depth, and all connected upon the levels, so that there is already a large body of ore developed. Upon the extension of active prospecting work has revealed the series of reefs showing even better results than the Molyneux claims. The new amalgamation and reconstruction provides for capital as follows:—To old Molyneux Mine holders, £75,000; to Extension Syndicate, £87,500; to owners of purchased 32 claims, £7500; working capital guaranteed at 30s. per share, or 10s. premium, £50,000; Reserved under option at 10s. premium, or 30s. per share, £30,000; making a cash value of £250,000. Besides this, the old Molyneux Company have £15,000 cash in hand, so that with the working capital, reserve shares, and cash in hand, the actual working capital amounts to £135,000, which amount includes 10s. per share premium on 80,000 shares. Taking the number of claims at 520 and the above capital, it is easily seen that the capitalisation of the claims works out to less than £500 per claim, and not taking the large amount of capital into consideration. Under the above condition it will necessitate the mine being laid out afresh so as to centralise operations. The natural slope of the ground from the shafts offers every facility for the gravitation of the ore through all the processes of milling, cyaniding, and depositing of tailings, securing a corresponding reduction of working cost, and as the company has secured all the werfs alongside the water, a full supply of this necessary commodity is assured; and further, the companies starting in this vicinity will have to procure their water supply from these sources, consequently a revenue will accrue from this source. With such a strong working capital, easy facilities for cheap working, and the strong and energetic local board, everything points to a brilliant future for this company—a future that, under these conditions, is practically assured.

Afrikander Gold Co., Klerksdorp District, S.A.R.

Hitherto the Afrikander Gold Company has not been able to work properly as a gold company for want of sufficient capital, but this state of affairs has now been remedied, and the company's finances have been placed upon a sound footing. The scheme of reconstruction, unanimously adopted at the general meeting held on April 30 last in London, is as follows:—The capital of the company is increased from £50,000, in 50,000 shares, to £200,000, by the creation of £150,000 new shares of £1 each, and the African Gold Recovery Company have the option for 12 months of subscribing for £20,000 of the said 150,000 new shares at a premium of 10s. per share. Mr. Malcolm S. Cooke was appointed as Chairman, and Mr. Charles McCulloch, Chairman of the African Gold Recovery Company, was appointed acting Chairman of the London board; and Messrs. W. P. Taylor, F. C. Bell, James Mitchell, J. W. Buckland, and W. Feldtmann were appointed as the local board in Johannesburg. With such well-known men upon the board of directors in London and with such a strong local board composed of well-known and eminently practical men, it is only natural to suppose that these gentlemen would not allow their names to be used as directors, except in connection with what they severally would consider to be a good payable mining proposition. Such the Afrikander undoubtedly is. The Afrikander Gold Company now consists of the farm Reitkuil in the Klerksdorp district, and of 203 claims, each 400 by 400 feet equal to an area of over 270 English acres. The original holding comprised an area of only 54 claims, but 153 claims immediately adjoining them have now been added. The property is situated along the outcrop of the Afrikander, Green's and Worcester Hope reefs, extends over a length of 4200 feet, and comprises the Deep Levels of the same. The Afrikander reef is a large body of ore averaging five feet thick, and lying at an angle of 36°, an angle eminently suited in this character of reef for easy, cheap, and economical working. The returns from milling and cyanide have run to 10 dwts., and the

unoxidised or pyritic ore averages 12 dwts., showing that the reef is eminently payable under the new conditions of gold milling and cyaniding as now being practised on the Rand. Green's reef is 3 feet wide, and averages of assays run 15 dwts., and the Worcester Hope reef is 3 feet wide, and assays average 7 dwts. per ton. The total average width of the three reefs is consequently 15 feet. The present milling plant is situated at some considerable distance from the mine, involving extra cost for transport of the quartz from the mine to the mill, but this will be remedied. A new water-right has been secured, and a complete crushing and cyanide plant is to be erected immediately capable of treating 10,000 tons per month. From actual working 60 per cent. extraction in cyaniding has been got without crushing, and the estimated return from the new crushing and cyaniding lant will be from 75 per cent. upwards, and at a cost not exceeding 14s. per ton. The facilities for cheap working are good in every respect. The ore bodies are large, and all the three reefs are so situated that they can be developed and worked from one main shaft. Coal is also plentiful in the neighbourhood, and can be procured, delivered on the mine, at 25s. per ton. Experiment and actual working trials having proved the suitability of the outcrop or free milling bodies of ore, for treatment by the coarse dry crushing and direct cyaniding process, similar to that now adopted by the George and May Gold Mining Company, and which, for friable and oxidised ore free from basic salts of iron is peculiarly efficient in its high gold extraction and the great saving effected in working cost over the ordinary stamp milling and concentrating process followed by cyanide. The chief advantages of the new system are:—1. Great saving in first cost, as a train of two or three crushers such as the Gates or Blake-Marsden patterns, and a series of revolving screens to size the crushed ore is all the machinery that is required to prepare the ore for treatment.—2. The cost of this preparation for cyanide treatment is only one-fourth of the cost of the ordinary milling practice.—3. The process largely diminishes the formation of slimes, and consequently offers a means of catching the gold which in wet milling passes off in the slimes, and often amounts to as much as 4 and 5 dwts. per ton.—4. About 80 per cent. extraction is obtained; the new 10,000 ton cyanide plant is now being erected immediately adjoining the mine in order to treat the enormous body of rich free milling ore already opened up on the property. With such bright prospects in view it is not to be wondered at that the African Gold Recovery Company offer 10s. premium upon shares capable of producing over 40 per cent. clear interest, and seeing that the direct coarse crushing process followed by cyanide treatment is now being adopted, it means a very considerable saving in the cost of treatment, and, therefore, an increased profit, and lucky shareholders may certainly look forward to the complete success of the mine at an early period, especially seeing the energetic character of the members composing the African local board.

Jumpers Extended.

The locality of the Jumpers Extension claims is being enquired for by dwellers upon the Rand, and so far they have sought in vain, and even now after the locality has been described by the company's Chairman in such a graphic manner, the result is to further mystify even those who are well acquainted with the locality. The property is described as "consisting of 15 claims and adjoins other well-known mining properties, such as the Jumpers Gold Mining Company and the Henry Nourse, south of which it lies." "I may here observe that it is of the class of properties known as Deep Levels." "Now as to the reefs, which is the most important of all, they are the well known Kimberley series, and they traverse the property." "There can be no question that the ground is on the dip of the Main reef proper, which at this particular point dips at an angle of 50° to the south. Besides having the dips of the Jumpers and Goldenhuis Company's reefs; it is also on the strike of the Elsburg group." "The open-cuttings show a series of lodes confidently stated to be the Kimberley series. You will be pleased to hear that our manager is already on the spot, and has cabled that he has already started operations." "It is the intention of your board to call you all together again in the course of two or three months, when we hope to put before you an encouraging report, and also, at the same time, we trust Mr. S. Caro, our manager, may be over here to give you, personally, his views of the property." The report of Messrs. Howitt and John Scott was also submitted to the meeting, and we presume that the Chairman's remarks and information were abstracted from their reports. A glance at any map, such as Goldman's, or the excellent issues of the *African Review* or *South Africa*, will show the Jumpers Extension is nowhere near to the Henry Nourse or Jumpers Companies; the scale will show that the Kimberley series is fully 7500 feet south of the Main reef outcrop at this point, and that the Elsburg reefs are 15,000 feet from the same. Further, if the whole of the claims were arranged over the whole 15 dips, 15 by 400 feet would give 6000 feet, thus they cannot have both the Elsburg and Kimberley series within their boundary, as both series dip south. But they are stated to be on the strike—*i.e.*, the outcrop of the Elsburg reefs—*ergo*, at 15,000 feet from the Main reef, and an angle of 50°. If this be true, it is evident the claims are 7500 feet on the dip of the Kimberley series. Now, this means that if they are on the Kimberley series (and Goldman's map does not show the locality of the blocks along this line), then the Main reef will lie at a depth of 8925 feet, and if on the Elsburg at 17,850 feet. The present cost of sinking and equipment (without stamps) for our Deep Level mines being about £70 per foot, or for the first shaft at 8925 feet, a capital expenditure of £604,750, and the law requires two shafts—a pretty expensive item in the capital account upon only 15 claims.

AN EGGETTE PROCESS FOR FINE ORES.—A considerable percentage of the ores shipped from iron mines and those of richer minerals is so fine that it cannot be manipulated to the best advantage in the furnace. These flux ores often contain a larger percentage of metal than coarser ores, and mining experts have for some time been endeavouring to find a way by which they could be handled and ore extracted from them at a profit. The Acme Mineral Nugget Company, of Milwaukee, Wis., claims to have discovered a process that can be used for this purpose, and which shall put the ores in such shape that they can be utilised in a satisfactory manner. This company manufactures compressing machinery, which transforms these fine ores into solid nuggets of ore at small expense. The nuggets can be made any size desired, and are ready for smelting immediately after leaving the press. The ore is pressed together with a binder, which contains all the elements used in smelting ordinary ores, making the nugget a combination of ore and high grade combustible. But a small addition of fuel is required in the operation of smelting. Tests have been made under the required grades of heat, showing that the ore nugget will stand handling, transportation, and all the conditions which it is necessary for it to be put through, as well as the natural lump. Machinery, having a capacity of from 5 to 20 tons an hour, is supplied by the company, and machinery and process are covered by patents.—*American Manufacturer.*

THE ROYAL AGRICULTURAL SHOW AT DARLINGTON.

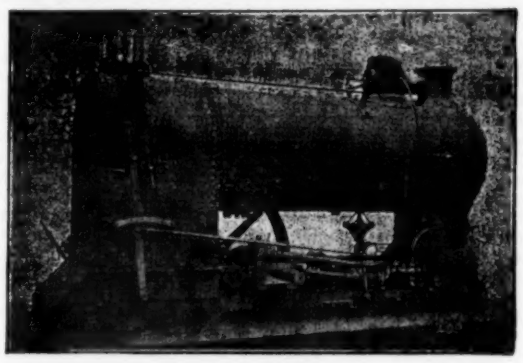
MACHINERY AND OTHER EXHIBITS.

(FROM OUR SPECIAL CORRESPONDENT.)

ALL those who use small-sized steam engines, whether portable, semi-portable, or fixed, have reason to be grateful to the Royal Agricultural Society. No other society or public body, no Government Department, has done for the steam engine what they have. By instituting the trials against the friction brake, with carefully-weighed coal and recorded observations, they established a standard of efficiency which has led to the gradual improvement of small engines all over the country. The turning-point was about 1870. Prior to that time many makers who exhibited, but did not send up engines for competition, stigmatised the engines entered for trial as "racers," and insinuated that it would be impossible to rely on them for good, honest work. But the experience gained in building a racing engine is not lost, and slight improvements which a firm may make in the fire-box or steam distribution of a machine entered for competition, will be continued in all their engines. Besides this, the Royal Agricultural trials encouraged the use of the friction brake. Manufacturers who built an engine for trial, and ran it against the brake to test its efficiency, found that this was a speedy and satisfactory method of ascertaining what work any new engine was really doing, and of trying the result of a slight change in the cut-off, or in the speed. This led to more science, and less "rule-of-thumb" being displayed by the smaller engine-building firms; and any one who can remember the average portable engine built between 1860 and 1870, and compares it with one constructed ten years later will see the result. Of course the improvement has continued, but it has not been so marked, and probably it is not possible that it could be. To describe what the Royal Agricultural Society have done for other machines, which are more purely agricultural, would be of no interest to the readers of *The Mining Journal*. In petroleum engines trials were held last year at Cambridge, which served to supplement those instituted by the Society of Arts a few years back, and which are quite justified by the large number of this class of engine on view at every exhibition where motive-power is required.

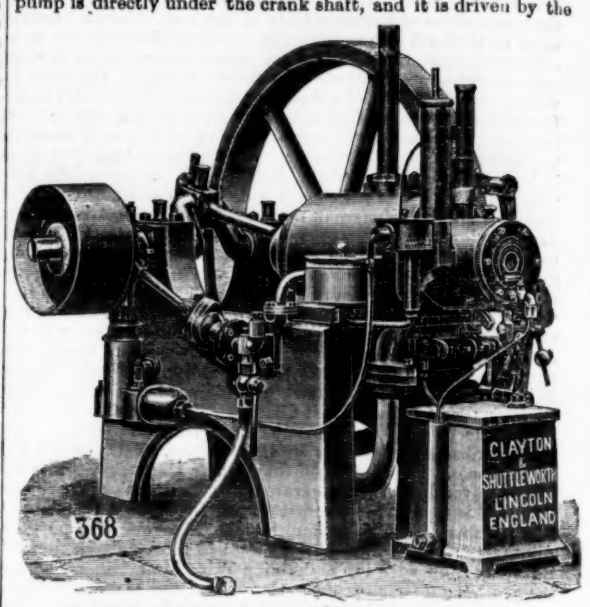
The show this year is held at Hummersknott Park, a picturesque spot, but not conveniently situated, as it is 2 miles from the station, from which all the machinery has had to be conveyed by one road. The ground covers 90 acres, being nearly ½ mile long by about ½ mile wide at the upper end. The implements occupy the lower half of the space, the machinery in motion being arranged on the extreme right and left. There are 393 stands in the Implement Yard, as against 442 last year at Cambridge; and 12,597 feet run of shedding, as against 13,402. But the feet run of machinery in motion is 2718, whilst at Cambridge it was only 2539; and the number of exhibits entered as "new implements" is also greater than last year.

One of the best displays of both steam and oil engines is that made by Messrs. Clayton and Shuttleworth, of Lincoln, who fully maintain the reputation they gained a quarter of a century ago, when they usually took first prize at the Royal Agricultural Society's friction-brake trials, mentioned above. In steam engines they show a 6 horse-power traction engine, and an 8 horse-power portable. By an arrangement which, though not quite new, is comparatively recent, the cylinder, instead of being attached direct to the boiler, is placed on a cast-iron saddle, which is carried on the boiler, so that the whole of the engine can be easily dismounted. Another exhibit is a double cylinder



CLAYTON AND SHUTTLEWORTH'S UNDERTYPE ENGINE.

10 horse-power undertype semi-portable, a form of engine which for mining purposes is usually preferred to the other. The consecutive numbers on the engines show that this firm has now turned out over 30,000. Messrs. Clayton and Shuttleworth, like all makers of portable engines, are now turning their attention to the oil engine. They exhibit the first portable oil engine they have made, a 7 horse-brake-power, built on Messrs. Knight and Weyman's patent. This engine has already been worked for nine months driving a 3 feet threshing machine; and in the show, it drives a 3 feet 6 inches. It is not only fitted with the usual "hit and miss" arrangement, but has an intermediate notch on the governor trip, so that it can at any stroke have a half supply to the vaporiser, instead of missing altogether. By means of a parallel motion, connecting the two levers, it is possible to give the same length of stroke to the vaporiser as the pump, when this is considered necessary, for instance, in starting. There is a water-tank on the roof, to which the water from the jacket passes, in order that it may be cooled. It then flows down to a movable tank underneath the boiler, from which the feed pump is supplied. Another petroleum engine at this stand is a 3½ brake horse-power. In this, the air pump is directly under the crank shaft, and it is driven by the



CLAYTON AND SHUTTLEWORTH'S FIXED OIL ENGINE.

same "hit and miss" movement as the vaporiser. By this means, when there is no explosion, the pump also misses a stroke. Another useful arrangement in this engine is a lever to hold the exhaust valve open when stopping; thus preventing any danger of the engine running backwards. This is very essential when driving a dynamo, as the reverse motion would have a tendency to injure the brushes.

Mr. H. R. Marsden, of Leeds, has made two modifications of the Blake-Marsden stone-breaker; both of them are shown at work, the two being driven by a 8 horse-power engine. The first of these is a combination of stone-breaker, screen, and elevator, together with shoots for loading carts, the whole being mounted on one frame. This frame is 12 feet long by 3 feet 2 inches wide. It is made of steel joists, and is carried on four strong wheels, so that the machine can be hauled by a road-roller or traction engine to different quarries, and is ready to commence work on arrival. The stone to be broken is fed into a hopper, from which it passes to the stone-breaker, 15 inches by 10 inches at the mouth. As broken it falls into the buckets of the elevator, which raise it to another hopper, supplying the revolving screen. The screen sorts it into four sizes—viz., fines, ⅜ inch, 1½ inch, and 2½ inches. These fall into four hoppers, side by side, and all provided with doors a such a height that it is only necessary to open the door for the contents to be discharged into a cart. Pieces that are too large to pass through the 2½ inch holes at the lower end of the trommel fall into the stone-breaker, no handling being required. The crusher, elevator, and screen are all driven by ropes, and the output of the machine is about 10 tons per hour. The other machine has a stone-breaker at the top, which breaks into 3 inch pieces. These fall on the cubing rolls, by which they are reduced to road-metal size, and nicely cubed, as if broken by hand. From the rolls the broken stone falls on a straight screen to sort out the fines. The output of this machine is 10 to 12 tons per hour. Mr. Marsden has just had an order for one of the larger machines for the Indian Government; and another, from the Crown Agents for the Colonies, to be sent to Colombo.

Mr. S. Howes, of Mark-lane, shows several machines for separating oats and barley from wheat, by means of revolving zinc drums; also an apparatus called the "sack turner," which consists of two cross pieces, opened out, and set to the distance required. On the tops of these are rollers, and by passing the sack over the apparatus, it is immediately reversed. Two horizontal turbines are also shown at this stand; the one a 10 inch, capable of developing 36½ horse-power with a fall of 50 feet, and the other giving 100 horse-power with the same fall.

(To be continued).

CLAYTON AND SHUTTLEWORTH'S PORTABLE OIL ENGINE.

EBBW VALE STEEL, IRON, AND COAL COMPANY (LIMITED).—The general meeting of this company was held at Manchester, on Tuesday.—Mr. Joseph Brailsford, who presided, moved the adoption of the report, which, he said, was a disappointing one to the directors. The experience of the company for the two years preceding the one now under consideration, was something extraordinary, as during that entire period in the face of falling markets, they succeeded in making a profit, and an increasing profit. In 1892 the gross trading profits were £45,414 and, in 1893 with a fall in prices, their trading profit was £70,330 and the next year, with a still further fall, their profit was again increased to £88,488. Those results were extraordinary. During the past year the company had had a twofold difficulty to combat. The prices of their products had continued to fall-off and there had been no corresponding decrease in the price of their raw material. On the contrary, the price of the latter had slightly increased. Further, competition had been so keen, that they had had to stand by again and again and see orders placed with their competitors at prices which they knew must entail a positive loss. The result of operations, therefore, was that they had barely held their own. In conclusion, while expressing disappointment that the directors were not able to declare a dividend, the Chairman said, that as regarded the commercial value of the concern and its capability of earning dividends under circumstances of anything like ordinary trade he still adhered to the confident opinion he expressed three years ago—Mr. Henry Davies seconded the resolution, which was carried.

CITY AND SUBURBAN.—The directors have declared a dividend of 50 per cent., payable to all shareholders registered June 28, 1895. The warrants for this dividend will be dispatched to the shareholders direct from the head office in Pietermaritzburg, so that European shareholders may expect to receive their warrants at or about the end of August.

MEETINGS OF MINING COMPANIES.

RAND SOUTHERN GOLD MINES, LIMITED.

Crushing to be soon started.—Facilities for favourable working.

THE first ordinary general, or statutory, meeting of shareholders in the Rand Southern Gold Mines (Limited) was held on Wednesday at Winchester House, the chair being occupied by Mr. EDWARD RAWLINGS, the Chairman of the company.

The SECRETARY (Mr. T. Toten Willcox) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—I have often heard it said, "What is the use of a statutory meeting?" I recollect once attending a statutory meeting when all the Chairman said was—"Gentlemen, this is a statutory meeting; we have nothing to do. Good morning!" Now, my view of a statutory meeting is totally different from that, and I think such was the idea of the Legislature when the Act of Parliament was passed compelling a meeting of shareholders within four months of the formation of a company. My view has always been that a statutory meeting is a very important one in this way—that, in starting a new venture it is of the first moment that within a reasonable period after the formation of the company the shareholders should have an opportunity of hearing from the gentlemen appointed to manage their business what capital has been subscribed, and what progress has been made since the formation of the company, and what is the general policy they propose to pursue in the future. In accordance with this view, I will first of all give you a few details of what has taken place with regard to the formation of the company. The company was incorporated on March 4, 1895. The capital that was subscribed by the public was between £40,000 and £50,000, and the number of shareholders is, roughly speaking, 400. Calls have been made to the extent of 15s., and I may inform you that the scrip is now ready, and can be obtained at the office of the company in exchange for bankers' receipts. I may also tell you that the necessary settlement on the Stock Exchange will take place shortly. The mine, moreover, has been taken over, the purchase-money paid, and the whole of the property is now vested in this company. As soon as we had arranged for the purchase and to take over the property, we communicated at once with our agents in Johannesburg, giving them instructions to proceed at once with what was necessary to carry on operations at the mine. That was in April. There were several things to be done. We wanted the old machinery overhauled, the pumping started, and so forth. In regard to these matters I will read to you an extract from the report of our agent in Johannesburg, written after he had visited the property. The communication is dated Johannesburg, May 6, 1895, and in it he says:—"Dear Sir,—At your request I have visited the property recently acquired on the Black reef. I was accompanied by a competent mining engineer, and have further consulted several of the leading authorities on Black reef properties, including Mr. Lowrey, the manager for the Orion Company, and who has also superintended the development of the Minerva and Verta properties on the same reef. The latter company's ground is situated a little to the west of yours, and Mr. Lowrey is convinced that its position is now practically secure as a paying mine. In regard to your property he is sanguine that, properly developed, with ample funds, it may turn out a second Orion. Mr. Leet, of the Meyer and Leet, also an authority on the district, holds a lot of ground close to yours, and is also confident that the mine should become a payable one. I have had many other confirmations of the same opinion from others well acquainted with the Black Reef generally, and also your property. All the evidence goes to prove that the latter has never had full advantage of either good management or sufficient working. All the ground for miles on the run of the reef on either side is pegged and held by people who know their business, and on the dip for 2 to 4 miles the ground is also pegged, and in one case being inspected by boreholes. Finally, as the result of my enquiries, I am of opinion that yours is a perfectly sound mining venture. After my visit to the property I engaged a foreman and bought some necessary machinery, which will be on the mine to-morrow. The foreman has hired the services of a mechanic and others to put everything in order, and they are now at work. I hope the pump will start on Thursday morning." That, gentlemen, is the report of our representative there. Then we appointed Mr. F. Lowrey our managing-director in South Africa. He sailed from England on May 25, and arrived in Johannesberg on June 12. A cable, which reached us two days ago, is dated June 21. In it he says: "Sinking No. 4 incline shaft. Prospects are decidedly encouraging. Have secured an excellent mining engineer. Remit by cable £5000." So, gentlemen, you see we have up to the present done the preliminary work, and now operations are being actively pushed on at the mine by our managing director, Mr. F. Lowrey. I daresay you would like to know what is the policy of the directors as to the future, and I may say a few words on this matter. We have at present on the mine a 15 stamp mill. It is proposed—and I expect by this time it has been done—to put that mill into first-rate order. We have ordered a cyanide plant capable of dealing with 4000 tons a month. It is also proposed during the next two or three months to do a considerable amount of development work. Then we hope that in the course of the next three or four months we shall be in a position to begin crushing and treating our ore. At some future date we contemplate increasing our stamping power, but if we find that the direct treatment of ores by the cyanide process can be satisfactorily worked without additional stamping power—as I am informed it can be done—it is possible we may adopt that method without spending a considerable amount of money on extra stamps. That is what we propose to do, and we think that, with good management, such as I hope we shall have, and with the working capital at our command economically administered—in fact, there is no doubt on the matter in my mind—we shall have a very paying property. Undoubtedly, we have a first rate-property. It even has certain advantages over other properties on the Black reef. We all know how those properties have come into favour during the past few years, how, by means of the improved method of treating ores, they have become extremely valuable. Now, our property is a large—a very large—property, it is easily worked, it is close to water, and fuel; in fact, it has every advantage which any property on the Black reef can possibly have. Then there is absolutely no doubt—it has been verified beyond question—that the reef runs right through our property. One word more, I notice that some of our shareholders have been (to my mind) foolish enough to dispose of their shares, and in one or two cases, as I have seen by the transfers, at a discount. I can only say, speaking for myself—a considerable shareholder—that I think those gentlemen will deeply regret what they have done. Our property has all the advantages which are possessed by other Black reef properties whose shares are quoted on the market at a considerable premium; and I cannot but think that those shareholders who have disposed of their shares hardly know what they have been doing. This is, of course, no business of mine; but I do not like to see gentlemen who have gone in for a speculation throwing away their chances when everything is going on satisfactorily. As I have already told you, we hope to begin crushing in about three months' time, and, I think, in this mine we have a thoroughly good and sound property. My attention has been called—and I am very glad it has—to our managing director, Mr. F. Lowrey. He is a man thoroughly well known in the mining world, and a thoroughly competent and reliable mining engineer. He has one characteristic which, though it may be to his own disadvantage, is to our advantage. He is a man who will always rather look at the worst side of anything so that when we get an opinion from him I, for my part, shall always put something of a premium upon it. If any gentleman has any questions to ask I shall be happy to answer them to the best of my ability.

A SHAREHOLDER: How far is the property from the railway?

The CHAIRMAN: The railway runs close to our property, and, in fact, nearly touches it.

A SHAREHOLDER: Are the assays any different now from those quoted in the report?

The CHAIRMAN: What we are doing now is clearing out the mine, pumping the water, and putting up the machinery, in order to properly develop the mine. There would be no object in testing any of the ore further. We know we have the Black reef there, and we know what the run of it is; and to take out more ore for the purpose of testing it would not give us any further information.

A SHAREHOLDER: It would show us that the ore would pay to work.

The CHAIRMAN: I think that we have satisfied ourselves over and over again on that matter. I feel absolutely certain about it myself—with the cyanide treatment. If we were not going to treat the ore with that process I don't say that we should have enough gold to pay. You will find by reference to the Orion Company's report that in 1894 the mill over the plates gave 5¾ dwts. Their cyanide treatment has made the same ore yield 13½ dwts., and 105 per cent. has been paid to the shareholders. Now we have a similar property to the Orion, and there is no reason why we should not do the same if the property is managed intelligently and economically.

A SHAREHOLDER: Have you any idea as to the probable life of the mine?

The CHAIRMAN: With 57 mining claims and a reef such as the Black reef is known to be the mine will probably last longer than you or I. (Laughter.) Continuing, in answer to further questions, the Chairman said that there were 17,000 shares in reserve to be issued when the directors thought fit—he hoped at a premium.

A vote of thanks to the Chairman terminated the proceedings.

EAGLEHAWK CONSOLIDATED GOLD MINING COMPANY, LIMITED.

The scheme of reconstruction adopted.—Professor Nicholas' report.

An extraordinary general meeting of this company was held on Monday, at Winchester House, for the purpose of considering resolutions to wind-up and reconstruct the company.

Mr. G. ELPHINSTONE KEITH, who presided, said: Gentlemen—I fear that most of the shareholders present at this meeting are disappointed at finding Mr. John Wallace is not in the chair. We all know that we are greatly indebted to him for his strenuous efforts to promote the success of the Eaglehawk in the past; and although he did not feel that he could appeal to you again in the matter of another reconstruction, and while he has resigned his position as Chairman, he has assured the present directors that he will be most willing to assist them by his counsel and advice should they wish to avail themselves of it. We have also to regret that Mr. Hankey is no longer on the board; but they both thought it would be better if one of the directors who had been with the company from its start up to date continued on the board, which accounts for my occupying the chair on this occasion. My present colleagues—Mr. Thorne and Mr. Woodford—I can say are good men of business, and as to myself, I hold 1000 shares in the present company, and I am prepared to take up the same number or more in the new company if the scheme of reconstruction is carried through. I think it right to preface my remarks by informing the shareholders how the various changes have occurred. I need scarcely say that we much regret that we have again to call on the shareholders for more money; but what is the alternative? To sacrifice all we have invested, and this in face of the opinion of the Melbourne board that "the mine is well worth preserving for the company." The circulars which you have doubtless all received give you general particulars as to our financial position, but an audited balance-sheet is here, should any shareholder wish to see it, but this I will allude to further on. As to the present moment, our finances are at a low ebb, and all we can do is to keep the mine unwatered, and if the reconstruction is not carried through all expenditure must cease at once. We shall have to wire "reconstruction not carried." The Melbourne board will stop all work, and the shaft or shafts will fill with water, which will take a lot of money to pump out. As far as I know, at the present moment we have liabilities in Melbourne of about £1000; but, as we have not full details, I can only assume this amount, and on this side our calls in arrears amount to £443, but part of this sum we may not be able to realise. We have spent at the mines on machinery, labour, driving, sinking, and development works £11,574. And now I come to the main point, as I have before said—that is, the reconstruction of the company. In the first place we shall have to meet all claims on the old company, but even then that should leave us, more or less £14,000 to £15,000 of available capital. Our property consists of 48 acres held direct from the Government, and we are informed the main line of the reef runs through it for 3300 feet. The shallower workings of the mine have yielded gold worth £1,250,000, and Professor Nicholas says it is a law of quartz mining in Victoria that where the first reef formations have been prolific in the yield of gold, other equally auriferous formations exist beneath, and this he thinks must be the case with the Eaglehawk. We have but to turn to South Africa to know what value attaches to Deep Levels in that country. Unfortunately, in the Maldon district there appears to be what is termed a barren belt, which some authorities estimate at 1000 feet. Mr. Nicholas says these breaks occur in all the best gold-bearing districts in Australia. He is very sanguine as to the future of our property, and he is admitted to be one of the best mining authorities, and thoroughly conversant with the district. We cannot go to a more trustworthy source for the advice, which we hope, with your sanction, to be able to follow. You will remember that Mr. Nicholas strongly advised the driving of the 1000 feet crosscut level to intersect the main reef His last report, dated March 18, gives the result of this work so far as it had then proceeded. The plat at the 1000 feet level had then been completed, and the 1000 feet crosscut west had been extended to a distance of 205 feet from the shaft, and a regular wall cut underlying east with a little quartz in it and a resemblance to a reef formation. The 826 feet level has also cut the track of the reef, and a level driven south in the track at 40 feet from the crosscut developed quartz of promising appearance, and at about 80 feet from the crosscut gold associated with the usual minerals was found. This was proved for a length of 30 feet, and stoping has been done at it for a length of 18 feet; it is about 18 inches wide. Mr. Nicholas believes it will increase in length and width below this level, it has given good gold-bearing specimens; but, unfortunately, we have come to the end of our funds, and a crushing will be made as soon as the proposed plan of reconstruction is authorised, and the result of this meeting telegraphed to the colonial board. The reef in the face of the drive, Mr. Nicholas says, looks very kindly for gold, and should be extended 100 feet further south so as to catch the No. 1 winze gold shoot. Having proved the quality of this No. 1 shoot of gold, you should crosscut to the reef at 900 feet, and again drive south to test No. 1 and No. 2 shoots of gold, and subsequently north from the crosscut on the course of the reef, if it offers sufficient inducement. This 900 feet level should indicate, with a great degree of certainty, whether the reef cut at 70 feet from the shaft in the 1000 feet crosscut is or is not the main reef. Should it prove to be so, you would then drive north for a couple of hundred feet. This brings the position up to March 18. On April 11 they had risen 35 feet from the 826 feet level, and the reef was from 3 feet to 5 feet in width, showing gold. Mr. Nicholas thinks the prospects encouraging. We are further told there are many gold-bearing places in the mine that still require attention and a little expenditure to thoroughly prospect for payable gold. We are also urged to continue sinking below the present depth of 1026 feet, so as to get below the barren belt, which, as Sir John McIntyre says, "everyone in the district advises." Thus far I have been confining myself to Mr. Nicholas' last report; but on hearing from Mr. Collingwood Kitto that he was intimately acquainted with the property, and that he had actually worked on the ground at the time that the rich discoveries of gold were made in 1861, I put the present position of the company before him, giving him mining reports, &c., up to date. His report, which is a short one, is as follows:—

> April 2: I think it most advisable to reconstruct the company, and I think it highly probable that with an expenditure of £12,000 you may obtain most satisfactory results. I think it would be advisable to extend a level at a point where the ground is most favourable for driving towards the Beehive, if such a place can be found in the shaft at a depth of about 300 feet to 350 feet. You are already down to to a depth of 1026 feet, and I think you should sink further to a depth of about 1200 feet. I think it would be the height of folly to abandon the workings at the mine in their present condition. It occurs to me that when mining on the Eaglehawk property in 1861 that there was a strong tendency for auriferous quartz to branch off from the lode into the footwall. In one place I remember £15,000 worth of gold being taken out, and as much as £1600 worth being extracted in one afternoon. I would strongly recommend a careful examination of the walls of the lode from the surface downwards to see if any of these branches can be discovered, and, if so, to spend a little money in following them. I have often known such branches lead to enormously rich chambers of ore, and sometimes the main auriferous portion of the lode takes that course.

I think those present would be interested in a letter from a shareholder to Mr. John Wallace, who kindly handed the letter to the board. This letter was not written with a view to publication; but I do not think the gentleman will object to my reading it to you. It shows what the opinion of a large shareholder is who has visited the mine, and talked matters over with Sir John McIntyre.

> I am a considerable shareholder in the Eaglehawk (London register), and have just had a visit from my friend Sir John McIntyre. We have had some conversation over the mine and its prospects. Sir John is most anxious that the London shareholders will fall in with some reconstruction scheme, as otherwise the property will be sold for a song, and he still believe the gold is there, and the mine will be a great one yet. The colonial shareholders will join in the scheme, and as they hold about one quarter of the shares, their contribution would be a considerable one (say) at 2s. 6d. per share, equal to £3000, or about double what you would be likely to get at auction for a "stickit mine." As to what the colonial shareholders paid for these shares, that is ancient history, and need not even be considered now. What you have to look at is that the London people must combine to protect themselves; the colonial people could surely do better by holding off and buying the mine cheap. This view of the case is one that Sir John is most anxious to avoid. The home interests must be saved, if at all possible; but it must be done by the home people themselves, the colonial ones loyally joining in their proportion. To expect the colonial people to do it alone, in face of what I have just hinted, is out of the question. I went to see the mine in December last, went down below, and took stock of neighbouring properties, &c. I wrote a letter to my brother on the head of it, in which I advised that, in my opinion, the gold in the middle levels, if found, would not amount to much, but that I felt convinced there was every prospect that it would be found somewhere below the 1000 feet level (say) at 1250 feet, or thereabouts, and I should not be satisfied the mine had had fair play until she was tested at that level. I am still of the same opinion, and if the English company abandons I should think it a good spec to take it up, and I shall try to get a hand in the game. At the same time, I have nearly 1000 shares, and would rather see the present company stick to it and pull it off.

Now, as to the reconstruction. To carry this out properly, we consider it essential that the new capital should be guaranteed. We do not want to rely on partial promises—always more or less uncertain, and which may fail us at the last. We want a definite certainty for all those who are willing to join the reconstruction; for it would be unfair to allot shares to any applicants unless a full subscription can be assured. Our solicitor has, in consultation with counsel, proposed a plan which will effectually carry out this object and it has been put very fully before you. Some shareholders may consider it an expensive programme, but personally I do not see that it could have been improved upon. If you require any further information about it, Mr. Holmes will, I am sure, be pleased to answer any questions you may put. It is, of course, for each shareholder to judge for himself, but I may say that we have already received proxies from shareholders who are unable to attend the meeting to the extent of about 22,000 shares, and we have reason to expect that most of the shareholders on the colonial register will be willing to come in, as they appear to be anxious for some scheme of reconstruction to save the property. Due notices of meetings would have been sent to you earlier, but we have had to send them over to Australia three weeks in advance of this meeting, so that we might receive the concurrence of the colonial shareholders in the plan by about the same time as the confirmatory meeting has to be held. We also hoped that by waiting we might have had the advantage of Mr. M'Eacharn being present, as he has recently visited the mine, and has had the advantage of conferring with the colonial directors, Mr. Nicholas, and the mine manager. Mr. M'Eacharn has been connected with gold mines for many years, and his opinions would have carried weight with us all. I have, I think, now gone over the proposal in full detail; but if further information is required by any shareholders I shall be glad to answer any questions to the best of my ability. I now beg to move the adoption of the three resolutions:—

> (1) That it is desirable to reconstruct the company, and that, with a view thereto, the company be wound-up voluntarily, and that Mr. James Durie Pattullo be, and he is hereby, appointed liquidator for the purpose of such winding-up, and that the remuneration of the said liquidator for his services in the winding-up be fixed at 75 guineas.
>
> (2) That the liquidator be, and he is hereby, authorised to consent to the registration of a new company, to be named the Eaglehawk Consolidated Gold Mining Company (Limited), with a Memorandum and Articles of Association, which have already been prepared with the privity and approval of the directors.
>
> (3) That the draft agreement submitted to this meeting, and expressed to be made between the company and its liquidator of the one part, and the Eaglehawk Consolidated Gold Mining Company (Limited) of the other part be, and the same is hereby approved; and that the said liquidator be, and he is hereby, authorised, pursuant to Section 161 of the Companies Act, 1862, to enter into an agreement with such new company (when incorporated) in the terms of the said draft, and to carry the same into effect, with such, if any, modification as he may think fit to assent to.

Mr. WOODFORD seconded the resolutions.

Colonel WEST thought that an account should have been furnished to the shareholders showing how the funds stood before bringing forward a scheme of reconstruction. He also stated that he could not understand why the shares in the newly-constructed company should be issued at a premium, and wished to know whether the directors would be prepared to reduce the amount of their fees until the company made a profit.

Mr. J. WALLACE, replying to a SHAREHOLDER, stated that when he found the company required more capital, he proposed to the colonial shareholders that they should raise it by issuing preference shares; but he received no response to his application from them. As he had been connected with the company for eight years, during which time no returns had been received from the mine, he thought it would be better for him to resign, and let some of the other directors see what they could do.

Mr. EDWARD HARRIS enquired whether the money subscribed would be entrusted to the same persons on the other side who had had the spending of the money in the past.

Mr. MAJOR asked whether the neighbouring mines were doing well.

Mr. GRAY (son of Dr. W. Blair Gray, a local director) said that on the north, the Union was down 1200 feet, working a fairly defined reef, which has proved enormously rich. On the south there was the original Beehive, which five years ago paid big dividends. The Derby Mine, which immediately joined their property, was starting to pay 6d. monthly dividends, and below the Derby was the South German, which had been sunk 1200 feet, and which paid 2s. monthly dividends on 24,000 shares. All these mines were on the same line of reef in the Maldon district.

Several SHAREHOLDERS protested against being charged a premium of 6d. per share on the shares in the reconstructed company.

Mr. HOLMES (the solicitor) stated that the reason why the premium of 6d. was charged was to provide funds for the purpose of paying the costs of liquidation, reconstruction, and underwriting of the new company. The directors considered it necessary to have the shares underwritten in order to secure the whole of the capital being taken up.

After a lengthy discussion, Mr. NELSON moved an amendment to the effect that the reconstruction be carried out, but that the premium of 6d. per share be eliminated from the scheme.

Colonel WEST seconded the amendment, which, upon being put to the meeting, was carried by 10 to 7.

The directors demanded a poll, which was declared as follows;—For, 7353; against, 22,963 (21,953 proxies.) The amendment, therefore, lost. On the resolutions being put, they were carried by eight to three.

A vote of thanks to the Chairman closed the meeting.

NEW GOLD HILL COMPANY, LIMITED.

Reconstruction confirmed.—Good news from the new property.

An extraordinary general meeting of the above-named company was held at Cannon-street Hotel, on Monday, when the following resolutions, passed at an extraordinary general meeting of the company held on June 6, were confirmed:—

1. That it is desirable for the purpose of carrying out arrangements with the Hampton Plains Exploration Company (Limited) to reconstruct the New Gold Hill Company (Limited), and, accordingly, that the same be wound-up voluntarily under the provisions of the Companies Acts, 1862 to 1890, and that Mr. James Drayson Austen Norris, of Suffolk House, Laurence Pountney-hill, in the City of London, chartered accountant, be and is hereby appointed liquidator for the purpose of such winding-up.
2. That a new company be registered under the name of the "Hampton Gold Hill Mines (Limited)," or with some other name approved by the liquidator, with a Memorandum and Articles of Association to be also approved by such liquidator.
3. That pursuant to Section 161 of the Companies Act, 1862, the liquidator be and he is hereby authorised to sell and transfer all the mines, mining rights, plant and machinery, and all the other business, property, undertaking, and assets of the company, whatsoever and wheresoever, to the new company, upon the terms and conditions of the draft agreement now submitted to and approved of by the meeting, and identified by the signature of the Chairman thereto, and to enter into an agreement with such new company when incorporated in the terms of the said draft, and to carry the same into effect with such modifications (if any) in the terms thereof as he may think expedient.

Mr. A. W. BIGGS (the Chairman) said that a cablegram had been received stating that the Hampton Plains Exploration Company was in good ore, and that an average sample, taken from 8 feet deep, gave 3 ounces per ton. In order to lose no time he had taken upon himself to have the company registered. (Hear, hear.)

The meeting closed with a vote of thanks to the Chairman.

THE GLENROCK COMPANY, LIMITED.

Winding-up and reconstruction confirmed.

An extraordinary general meeting of this company was held on Monday, at Cannon-street Hotel, Mr. G. F. TAVENOR presiding.

The SECRETARY (Mr. W. P. Owen) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—The notice convening the meeting expresses nearly everything I have to say on this occasion, inasmuch as what went before was all discussed at the last meeting, and the shareholders were pretty unanimous in giving their assent to the scheme put before them. It has been very favourably considered indeed by, I might say, the greater majority of the shareholders, as their communications have testified; so I think the best thing I can do is to put the resolutions *en bloc*. I may say, however, that we have by this mail received advices from our solicitors in Dunedin to the effect that all the titles in the Premier properties have been vested legally and in a business-like way in the name of the Glenrock Company, and that everything necessary in that colony for protecting the Glenrock Company has been thoroughly carried out. I have much pleasure in proposing: "That the resolutions 1, 2, and 3, as mentioned in the notice convening the meeting, be confirmed as special resolutions under Section 51 of the Companies Act, 1862."

These resolutions were as follows:—(1) "That it is desirable to reconstruct the company, and accordingly that the company be wound-up voluntarily, and that John Alexander James Shaw, of 23, Queen Victoria-street, chartered accountant, be, and he is hereby appointed liquidator for the purposes of such winding-up, at a remuneration of 100 guineas." (2) "That the said liquidator be, and he is hereby authorised to consent to the registration of a new company, to be named the Glenrock Consolidated (Limited) with a Memorandum and Articles of Association, a draft of which has already been prepared with the privity and approval of the directors of this company, and initialled by the Chairman of this meeting for the purpose of identification, and with such, if any, modifications as the liquidator may think expedient." (3) "That the draft agreement submitted to this meeting, and expressed to be made between this company and its liquidator of the one part and the Glenrock Consolidated (Limited) of the other part, and initialled by the Chairman of this meeting for the purpose of identification, be, and the same is hereby approved, and that the said liquidator be, and he is hereby authorised, pursuant to Section 161 of the Companies Act, 1862, to enter into an agreement with the Glenrock Consolidated, Limited, (when incorporated) in the terms of the said draft, and to carry the same into effect with such, if any, modifications as he may think expedient."

Mr. H. D. H. FERGUSON, J.P., seconded the motion.

Mr. DYET said that in consequence of rumours which he had heard he wished to ask whether any real alteration had been decided upon in reference to the calls as originally printed. He had been a large shareholder for something like 15 years, and had lost a great deal of money by the companies. Still he was quite willing to assist in getting as much money as was wanted, provided it was done at once. Being 80 years of age, he would like to see a little of his money back before he passed away, and he hoped that they were now coming to something positive. They had the plant, and a great number of men at work, and he trusted that the work was going on at the present time. He would like to know how many hands were now employed, and if there was any reason why they should not continue. He would not object to an increase of the calls, but he wished to know if Mr. Farrell and Mr. Beal took any interest in the company beyond that of shareholders, and if they still held shares.

The CHAIRMAN said Mr. Dyet might quite rely on one fact—namely, that so far as their ability went the directors would do their best so that something might be realised from the mine before he passed away to the great majority, perhaps in 20 years' time. At the last meeting, as Chairman, he assured a gentleman that the calls should not exceed 6d. per share on any occasion. With regard to the work on the Premier, it had been decided that the upper tunnel should be proceeded with into the inner part of the mountain where at any time it was expected to strike a lode of very good ore. That for many years had been the object it was intended to go for, and a cablegram had been sent out to push ahead into the mountain. With regard to Mr. Farrell and Mr. Beal, he thought he could say that neither of them had any interest in the Glenrock Company, and there was no friction to be apprehended now. The company had cut itself adrift from anything appertaining to Mr. Farrell and Mr. Beal. Moreover, the *coup d'état* the other day—the getting entire possession of the Glenrock Mine—would, he thought, predispose Mr. Beal to look at the company with anything but a friendly eye.

The resolution was carried, with but one dissentient.

The CHAIRMAN said he thought that the confirmation of the action of June 7 was a very wise thing, because he believed the future working would be something different from that of the past. The company had never before had a property entirely in its own hands, as it had the Premier now. He hoped at the next meeting there would be good news for the shareholders. The directors might be relied upon to do their best, and their action with regard to the Premier must have shown that they had not allowed the slightest opportunity to slip.

Mr. VEARS proposed, and Mr. H. D. H. FERGUSON, J.P., seconded, a vote of thanks to the Chairman and directors, which was unanimously agreed to.

The CHAIRMAN, in thanking the shareholders, said the board was in treaty with certain people in India for the acquisition of the property. The company would always reserve the mining rights, unless an extremely favourable offer were made, but they would be glad to get offers for the surface rights.

The meeting then closed.

LONDON AND SOUTH AFRICAN EXPLORATION COMPANY, LIMITED.

The company's rents increasing.—Local trade reawakening.

The annual general meeting of the London and South African Exploration Company (Limited), took place on Tuesday, at Winchester house, Old Broad-street, Mr. C. J. POSNO (the Chairman of the company) presiding.

The SECRETARY (Mr. George Brown) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—It is our custom, before entering into particulars, to take a glance at the position of the previous year, and point out various differences as between one year and the other. You will have noticed differences of some importance, but they occur more in book entries than in real receipts. The cash distribution this year, compared with last, shows a decrease of £5,000, although the book debts show a larger difference. Last year we were mainly affected by the liquidation of the North-Eastern Bultfontein Company, one of our tenants, a company which has been so large an employer of labour that it only ranked second, in that respect, to the De Beers. Consequently when that labour was not required, there was a certain stagnation of local trade, and people were less able to pay their rents. The result is that our collections, although more laborious, brought in less for the year under review. In the two previous years our collections were more easy. During those years the North-Eastern Bultfontein Company paid us about £9000 on account of rents, which failed entirely last year during the period of their liquidation, and the absence of that money by itself is quite sufficient to account for the slight diminution that appears. But now an entire change has come over all these non-rent paying claims of last year belonging to the North-Eastern Bultfontein Company. They have been taken up by men of means and position, well able to form themselves into companies, with ample capital for all purposes. This has reawakened local trade; labour will be extensively employed, and stagnation will be forgotten in a new and better-established and more lasting prosperity. (Hear, hear.) The liquidation accounts of the North-Eastern Bultfontein Company have not yet been filed, but I can give you some idea of what has happened with respect to the claims, though you must not bind me to accuracy. We know that out of 671 claims that were taken up by that company, the liquidator has sold 458, at a total of about £8650, and that he has abandoned the balance of claims; that is to say, that he has abandoned 213 claims, which have reverted to the London and South African Exploration Company. You will be pleased to hear that we have found purchasers for such abandoned claims not only at the prices realised by the liquidator for the pick of the claims, but at a better average. The liquidator of the North-Eastern Bultfontein Company obtained an average of about £19 per claim, while in dealing subsequently with the claims which reverted to us, we realised an average of £26 15s. (Applause.) In other words, we are at present receiving a sum of, as nearly as I can say, £5700 for the North-Eastern Bultfontein claims that were thrown up. Now, not only is this important to us to the extent of the £5000 odd that has found its way into our pockets, but where last year there was no rent paid or payable in respect of the particular claims that were then in liquidation, we commence to receive, as from July 1, the newly-created rental originated by the efforts made by the North-Eastern Bultfontein Company—efforts which were not profitable to themselves, but in their effect seem to be of extreme benefit to us, because the rental now running on those 671 claims amounts to no less a sum than £12,000 per annum to this company. There are a few more claims we have placed out, so that altogether it appears to us that we have very much to be thankful for. (Applause.) It is quite a fluke that these claims reverted to us, and they no sooner came back than we placed them out on most satisfactory terms. I will now refer to certain debit items in the balance-sheet, such as the North-Eastern Bultfontein liquidation, which is an accumulation of rent. I have told you that the liquidation accounts have not been filed, and, therefore, I cannot say how much is likely to come to us out of these accounts when they are presented; but we have every reason to believe that during this year there will be paid to us part of that £27,208, in a sum that will not be less than £12,000. Of course, we will go on claiming the balance as preferential, which, I believe, we have a right to do, but to what extent we are going to succeed, in addition to that particular £12,000, I hope to tell you on a future occasion. Then you will notice that the New Gordon Diamond Company also figures in our balance-sheet for a considerable amount. Again, with respect to that, it is impossible to tell you to-day the exact value of it. I have seen one of the directors of the New Gordon Company, who has lately arrived in England, and who bears me out that, if they are not able to pay up all at once they hope to do so shortly; that all the forbearance that we have shown them will be repaid, and that there is every probability of the whole amount coming in. (Applause.) Therefore, gentlemen, although it has been my privilege to attend at these meetings since the company was established in 1870—and I think there has been only one occasion on which I was not present at the annual meeting—although I have had the pleasure of presiding, as I have said, I do not think that during any of the last six years I have had a greater pleasure than that of meeting you on this occasion. Another property on the lands of the London and South African Exploration Company promises to come to the fore. That is called by the name of the Belgravia Mine. It seems to be extremely promising, and there are negotiations pending for the further proving and developing of it. It is very near to the De Beers Mine, and is in a most excellent position. In talking of the nearness to the De Beers Mine, it occurs to me that I ought to mention a fact to you on this occasion that I think you will consider very interesting. It is this, that so near is the property of the London and South African Exploration Company to the De Beers Mine that it is tumbling into that mine, as it appears to us. There is a certain portion of the ground near the De Beers Mine which is depositing floors, under a lease which will extend, I believe, until 1901 or longer. The extraordinary phenomenon has happened—that it is by this time about 110 feet below where it was. Now, it is an interesting matter for you to think over what the meaning of that is. Why does it disappear? It has gone down bodily about 110 feet, and Mr. Brown tells me that about 4 acres have sunk in that manner. I do not think I will say more to you on this subject, as it might not be right, but the matter is having our attention, and perhaps you will think out what the possible meaning of that may be. I have been told for years that there is a hard encasing rock all round the De Beers Mine. At the present moment the encasing rock, if it may be called by that name, or the dividing band on our side, is like a sheet of note-paper. That rock has crumbled away and gone on our side, and it is only just like a line, like a sheet of note-paper. What is strange in it is that this falling away of surrounding ground has not taken place anywhere round the De Beers Mine except where it meets the property of the London and South African Exploration Company. These, gentlemen, are the principal items, as far as I can see, that refer to the present, which refer to some extent to the past, and to a very great extent to the possible future. I shall be happy, however, to answer any questions, and that I may be in order, I beg to move—"That the report and accounts, as presented, be received and adopted." (Applause.)

Mr. H. B. WEBB seconded the resolution, which, after a brief discussion, was put and carried unanimously.

The retiring directors—Mr. H. L. W. Lawson, M.P., and Mr. C. J. Posno—having been re-elected, and the auditors—Messrs. Marden, Mosley, and Co.—having been reappointed, a cordial vote of thanks was passed to the Chairman, which terminated the proceedings.

KIMBERLEY DIAMOND MINING COMPANY, LIMITED.

The company's prospects highly satisfactory.

A general meeting of the shareholders in the Kimberley Diamond Mining Company (Limited) was held on Tuesday, at Winchester House, the chair being occupied by Mr. C. J. POSNO.

The SECRETARY (Mr. George Brown) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report and accounts, said he found some difficulty in dealing with the affairs of the company because he had failed, hitherto, to make the shareholders understand the very great importance of the undertaking. The company had paid the London and South African Exploration £25,000 for the privilege of prospecting for diamondiferous ground, and had spent £28,000 in doing so, under the impression that all this was capital expenditure. The auditors, however, for reasons which he could not understand, had debited this £53,000 to revenue account. Next year, however, they hoped to present the accounts in a different form. They had earned a considerable sum, but, owing to the action of the auditors, this had been turned into a balance on the wrong side. With respect to the future, he might say that a number of the claims in the Bultfontein Mine, in which they were interested, had been taken up by other companies. This company was entitled to one-third of the profits made by these other undertakings, and large profits were certain to accrue to them in the future. They were also bound to share in all the prosperity that might come to the Exploration Company.

Mr. HARRY LAWSON, M.P. said that when the company was originally formed its purpose was to take up the right to all the diamondiferous ground on the property of the London and South African Exploration Company, with certain defined exceptions. All the extensions made since the date of the acquisition of the right came within the province of the company, who were entitled to one-third of the profits derived from them.

The motion for the adoption of the report and accounts was then put, and carried unanimously, and shortly afterwards the proceedings terminated.

CRŒSUS SOUTH UNITED GOLD MINES.

The statutory meeting.—Statement from the chair.

The first, or statutory general meeting of the shareholders in this company was held on Tuesday, at Winchester House, the chair being occupied by Colonel LAWRENCE HEYWORTH, J.P.

The SECRETARY (Mr. A. E. Hammond) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—As this is a statutory meeting and we have no business to transact, I will simply make a few remarks with reference to the condition and prospects of your company. In the first place, so far as regards your prospects, they are fully set forth in the prospectus, and we have little more to add to what is said there. Your directors examined carefully into the statements there made, and, so far as we could judge, they were entirely reliable statements. Since then we have had reports from the other side from our manager in charge of the mine, and these reports have, so far, entirely confirmed what was said in the prospectus. In the meantime we have not been idle. We at once got to work, and our manager sunk one additional shaft, and has also increased the depth of the others, and in all cases where he has struck the reef he has found it to contain a payable quantity of gold. Of course, we shall not crush for some time, not having machinery on the spot, but the directors will lose no time in completing their arrangements for thoroughly and economically developing this property. The last report from the mine was in the shape of a telegram, which I think I may read. Our managers, Messrs. Bewick and Moreing, cabled out to Western Australia: "Crœsus South. What is the present condition and future prospects of the undertaking. Please telegraph reply not later than June 24." We have this morning received the following reply, which reached London yesterday:—"In its present condition development opening up splendidly. Sufficient improvement to warrant a considerable outlay. Struck another lode payable in gold. In my own opinion the mine will develop into a fine property." At this early stage I think that, as far as telegrams go, this is as satisfactory as we could have wished for. I may, in conclusion, mention that in the first instance the directors were extremely desirous that we should not fall for want of working capital, and that they enquired from our managers what they thought would be sufficient. They told us £15,000, but we determined on having more—£20,000—and I may say that we have allotted shares to an extent which we believe will fully realise £20,000 for working capital. That is, I think, a very satisfactory circumstance.

Mr. ALFRED THOMPSON said: Mr. Chairman—There being no member of the company desirous of asking any question, and the exposition of affairs in the company having been exceedingly satisfactory, I beg to propose the usual vote of thanks to our Chairman for taking the chair.

Mr. R. J. MIDDLETON: I have much pleasure in seconding that. The motion was carried by acclamation.

The CHAIRMAN, in acknowledgment, said: We are much obliged for this expression of confidence in the directors, and we hope that soon we shall be able to give you something which will earn again for us your confidence and your thanks.

BALAGHAT MYSORE MINES, LIMITED.

The tailings to be treated by cyanide.—Some good points in the mine.

THE ordinary general meeting of the shareholders in the Balaghat Mysore Mines (Limited) was held yesterday, at the Cannon-street Hotel, the chair being occupied by the Right Hon. Lord RIBBLESDALE.

The SECRETARY (Mr. I. Crocker) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—I wish that the report and accounts were more satisfactory than they are. I do not at all disguise from myself that this has not been a good year for the Balaghat Mine, and that a great many of the hopes which we entertained about it a year ago have not been justified, while at present there is very little, certainly, to encourage one to make a "bullish" speech on the prospects of the mine. I, myself, have never made either a "bullish" or a "bearish" speech, concerning the mine. I have always told you what I think about its prospects, and I shall say what I think about them now. I suppose you have all read the report. It is short and in large print, which is convenient, and more or less it relates the position of affairs and the course of events which has led up to the position which we occupy at the present time. The last meeting of the company was held on June 29, and at that time we had very reasonable grounds for hoping that we had turned an awkward corner, and that our affairs were going to look better. Those hopes were realised by the returns up to the month of August. In that month we got 759 ounces out of the mine, which I believe was nearly a record. In September and October the returns fell off, and in November we had the bad news that there had been a serious breakdown of the pumping engines, and that a great part of the mine was unworkable until it had been unwatered.

We had then the advantage of having Mr. Edgar Taylor out at Colar, and he advised us as to the dilemma we were in, which was that we had to unwater the mine at a considerable expense while we had not the money to do so, or at least we considered that the money we had could not properly be used for that purpose. Well, after mature consideration we decided to suspend operations at Ogle's section, and we sent out instructions to our agent on February 15 to that effect. Of course, if things got better there would be no difficulty in unwatering the mine, but that course would necessitate the expenditure of a great deal of money which at present we have not got. If you turn to the fourth page of the report you will see a paragraph there which speaks of the amount of quartz stamped, and it points out what has always been very much against us in this mine, that only about 36 per cent. of the stuff passed through the mill is quartz because we have always suffered from the fact that the lodes in the Balaghat Mine are of such a character—being narrow—that a great deal of the stuff broken away is not quartz. That means, of course, a great expense in the matter of labour and an unsatisfactory crushing, and I confess that until we see wider lodes than we have at present the difficulty must remain with us. I do not propose to say much myself about the mining matters in connection with the company, because Mr. Taylor speaks to you with authority on those subjects, and you will wish to hear what he thinks about the general prospects of the mine. There are two points he will tell you which are of an interesting character, and to a certain degree, encouraging. As to our policy, that is, of course, a policy of thrift. In the first place we have cut the expenditure down in every possible way. We have reduced it to £500 per month out there, and we have reasonable hopes of being able to reduce it still further owing to an arrangement about the water rent which is in process of negotiation with the Champion Reef Company. That, then, is the kernel of our future policy—thrift, and the cutting down of our expenses to the extreme limit consistent with efficiency. Then in the next place, we have now determined that the accumulation of tailings which are on the ground measuring about 50,000 tons, which we have often spoken of before, can best be dealt with by the cyanide process. As you are aware, the cyanide people have been out there making elaborate experiments on the Mysore tailings. The experience of the Mysore Mine, the report of our agents, and the interviews we have had with Mr. Ellis, and the trial of 30 tons of our own stuff—these have assured us that the cyanide plant is the right thing for us to adopt. That plant has been ordered of a capacity which will enable us to deal with 2500 tons a month, from which we hope to get a profit of from 6s. to 7s. 6d. per ton. I do not think that I have anything further to say on that matter. The capital we have in hand at present, is sufficient to provide this machinery and to carry on at a very low rate of expenditure such as I have indicated for a very considerable time, and if the forecast which I have made of the profit arising from the treatment of tailings is justified by results—and there is every reason to think that it will be—we shall, of course, have a small income coming in, which will enable us to carry on the war, which, up to the present, I admit, has not been very satisfactory or favourable to the shareholders in the Balaghat Company. You may be sure that my colleagues and I share to the full your disappointment, and that we shall spare no effort, not only to carry on the working of the mine, but to bring it to a successful issue, if such can be done by energy and industry. That is all I have got to say to you on the subject. I will now propose—"That the report and accounts for the year ending December 31 be received and adopted."

Field-Marshal Sir FREDERICK P. HAINES, G.C.B. seconded the motion.

Mr. JOHN TAYLOR: Gentlemen—You will have gathered from a perusal of these reports that the mining operations are now confined to the workings at Tennant's shaft and in the crosscut east from the 270 feet level in the old mine. Tennant's shaft, which I think we may absolutely say without doubt is upon the Champion reef, was deepened during the year under consideration 200 feet. Since then it has been sunk a further 109 feet, making a total depth from the surface of 606 feet. At 600 feet the drivage of new levels north and south has now been commenced. The lode in Tennant's shaft, as described by Captain Pryor in his report, was for the first 100 feet below the 285 feet level, carrying a reef from 2 feet 6 inches to 4 feet wide, with a value of ½ ounce to 1 ounce of gold to the ton. Below this depth it is quite evident that the shaft had passed down out of the pay-shoot, and the sinking below that point was through unproductive rock. From Tennant's shaft the levels are at six different points, at 285 feet deep, at 350 feet, at 385 feet, at 420 feet, at 500 feet, and now, as I have said, we have commenced a 600 feet level. The reports of these drivages may appear to us to be rather complicated, because some of them westward are upon two separate portions of the reef. Now, for a considerable distance in the 285 feet level, in the 350 feet, in the 385 feet, and in the 420 feet stoping ground of varying size and quality has been laid open; and it now appears, from the latest report published, dated May 28, that the 500 feet level north, which is not nearly so far advanced as the levels above, has just entered the pay shoot. According to that report, the gold-producing quartz was from 6 inches to 8 inches wide, worth 1 ounce 2 dwts., and it is satisfactory to learn from a later letter, dated June 4, that the quartz is widening. It was then 14 inches wide, and still worth 1 ounce. The 600 feet level has only just been commenced, but notwithstanding that Captain Prior now tells us that he proposes to push the sinking of the shaft for another level—a 700 feet level—with anticipations of, he says, getting into a more productive channel of ground. You are, no doubt, aware that an important discovery was made recently in Coromandel Mine of what we believe to be an entirely new lode, lying to the east of any of the previous workings. Both in the 440 feet level and the 500 feet level in the Coromandel Mine, that lode has been found to be wide and rich. In one case it was reported to be 4½ feet wide, worth 3 ounces to the ton. In a northerly direction, these levels in the Coromandel Mine have been driven very nearly up to the southern boundary of the Balaghat Company's property, and in order to follow up this discovery a crosscut has been drven east from the 270 feet level south of Ogle's shaft, in the Balaghat Mine, and two reefs, or perhaps we should call them more correctly branches of reef, have been intersected, both of which are now being tested by drivages north and south on their course. One of these branches has been reported to be 4 feet wide, and very promising in appearance. Captain Fryor sent us yesterday a cable message which speaks of this point. It is dated June 27, and says:—"Ogle's shaft 270 feet shows a marked improvement. The quartz is 1 foot wide, assaying 7 dwts. per ton, still improving. There is no material change on Tennant's shaft. Now that is not a very strong statement, except in that it conveys to us the satisfactory information that one of the drivages in the direction of the Coromandel Mine—we have got something like 400 feet to drive within the Balaghat Company's property—has touched the north end of a pay-shoot, and I hope we shall find that a good pay-shoot. I should tell you, however, that my brother and I are not all satisfied that the lode we have in this crosscut from the 270 feet is actually the same lode that we have in the Coromandel Mine—it may be still further to the east—and, therefore, those trials are still being vigorously prosecuted. There is no doubt that our operations so far have not been attended with the success we have hoped for, and the success I think we had reason to expect, but we have already met with some pay shoots which, as we get deeper, we trust will be found to increase both in length and richness—this as you are aware, not being an uncommon experience on the Colar gold fields, and, therefore, is a justification for such an assumption. We have a great length of ground north of Tennant's shaft to explore, and after passing through the main dyke, which is now close in front of us, and getting into the settled ground we may reasonably expect to find beyond it. I do hope that productive shoots of ore will be met with on that reef north of Tennant's shaft. Another string to our bow, of course, is this discovery which I have mentioned in the crosscut south of Ogle's shaft, where we hope to pick up the northern extension of the good lode the Coromandal Company have been working. These are interesting points. Captain Prior has watched this matter very closely, and, from what he writes, he is certainly hopeful of success. I can only trust we may have better news to give you before long. (Applause.)

The CHAIRMAN, speaking in answer to Mr. GILBERT ELLIOT, said that the call which had just been made upon the shareholders was the tail end of the resources of the company. It was, perhaps, hardly necessary for him to go very closely into figures, but at the present time they were perfectly solvent, and had a substantial balance in hand after satisfying all liabilities. Of course, as Mr. Elliot had said, if their hopes with regard to the future of the mine were not realised they would find themselves in a dilemma between reconstruction and throwing up the sponge. The figures in connection with the last reconstruction were unpleasant, but it should be remembered that they went into reconstruction with a pistol at their heads, and reconstructions of that sort were always very expensive. It was difficult for him to give the opinion of his colleagues as to what should be done if the present hopes of the directors were not fulfilled. It was, perhaps, rather a matter for the shareholders to decide. Speaking for himself, however, if things in that event were no better than at present, he should, personally, not advise another reconstruction.

The motion for the adoption of the report and accounts was then put, and carried unanimously.

The retiring director, Lord Ribblesdale, was, on the motion of Sir FREDERICK HAINES, unanimously re-elected, and the auditors, Messrs. James and Edwards, having been reappointed, the proceeding terminated with a vote of thanks to the Chairman.

GWELO EXPLORATION AND DEVELOPMENT COMPANY, LIMITED.

The company's concession covers 20,000 square miles.

An extraordinary general meeting of the Gwelo (Matabeleland) Exploration and Development Company (Limited) was held on Thursday, at the Cannon-street Hotel, to consider and, if approved, adopt certain options acquired by the Chairman of the company for the acquisition of a concession of territory in South Africa upwards of 20,000 miles in extent, bordering upon the Transvaal. Mr. CHARLES J. FAUVEL (Chairman of the company) presided.

The SECRETARY (Mr. J. Tucker) read the notice convening the meeting.

The CHAIRMAN said: In accordance with the promise I gave at the last general meeting—that I would do nothing without the knowledge of the shareholders—I am here for the purpose of telling you something about the work I have been doing. I may say that I am anxious to take the shareholders entirely into my confidence, as I hope they will take me into theirs. I have certain ideas that though shareholders are shareholders and directors directors, they are all one if they work together in unity. Therefore, I have called you together for the purpose of telling you just what I have done before letting anyone else know what I have to say. I have given no one any opportunity of either putting up or knocking down the price of our shares by having advance information, though I am sorry to see that the shares have been selling at so low a price. However, it has not been in my power to prevent that, and all I can do is to ask the shareholders to help me to improve the price by not selling their shares. (Hear, hear.) I certainly do not see how we are to make the company a success if you sell your shares, and give me no opportunity of realising for your benefit the properties we hold. We all want to see this company, which has been a good deal knocked about, become a really big thing, and there is no reason why it should not be so. (Cheers.) We have called you together, then, to tell you, before giving anyone else the information, what we have done. The first notification of our proposal was when it was put into the notice paper and sent to the shareholders. In the first place, it is, perhaps, necessary for me to go into the circumstances of what has transpired between the company and myself. The first thing I must refer to is the question respecting the New Glasgow Estate, a plan of which I have prepared for your inspection. I have had this plan divided into sections and numbered, so that, when any valuable discoveries are made, our agents can cable over the number of the section in which the discovery is made, and we can know at once where it is. There was some little difference between the purchaser of the property and the vendor, which I saw might soon touch the interests of this company, but I took the matter in hand, and in a few hours I had it settled, the money paid over, and the deeds of the property transferred to my name. I am now in the position of being able to hand over the property to the company. We want, of course, the value of our money, and we must have the mineral rights. Without the mineral rights I do not see that we could do much with the property. If we had the mineral rights we should be able at once to obtain the assistance necessary for the acquisition of the property. However, I have so arranged the matter that when we hand over the property to the company, the company will take it at absolutely the cost price. There is no question of a profit of £6000 or £7000 being made by anyone in the deal. The company will get the whole benefit. The gentlemen who bought the property told me to do as I liked with it; they had given so much for it, and the company might have it at the same price. I have dealt with the matter in that way, and so far everything is satisfactory. I can make an agreement with the company by which it will get the property at the first cost. (Hear, hear.) Having read a letter from the company's representative in Johannesberg, the Chairman proceeded: These are some of the properties; there are others that have been considered, and if I have the power to go on and select some or the whole of these properties, they might be taken up conditionally on our seeing them ourselves and satisfying ourselves that they are valuable. If they are valuable there is no doubt we might make a good deal out of them. For myself, I have always felt that, though Charterland may have great possibilities before it, we ought not to be bound to confine ourselves to it. The world is the field for the mining engineer, and if we see the prospect of good work elsewhere, where profit is to be made, we ought to try and make that profit. That is our object—to make good profits. Then there is another option that I have secured. So you see that movements are always taking place. I want to put these properties before you for your own sakes, I have nothing to do with the Press, and I should consider it wrong to try either to boom a matter of this kind or to run it down. Certainly, all that has been done of late by the vendor of the property has been to benefit the company. He has spent a lot of money in trying to help us along, and if we are successful it will be alike a good thing for him and a good thing for us. I have been charged with taking advantage of my knowledge of the company's affairs to knock down or to lift up the price of the shares. There is not a word of truth in that charge. I have not offered on the market a single share of those I hold in trust. I have not even taken advantage of the prospect of a rise in price to buy shares at 3s. or 4s., and so make a few pounds out of the shareholders. I have in every possible way tried to avoid dealings of that kind, so that no one can say I have been trying to benefit myself apart from the company. (Cheers.) So soon as any information came I placed it before the board, and the next day the notices were sent to the shareholders; so that they knew what was being done as soon as anyone else. I do not know whether I should go on to ask you what you will do with regard to the claims at Johannesburg. You may think you have your hands full already; but if we have force and energy we may be able to pull off a lot of things at the same time. I am not the man to stop at a little, or even at one big thing; and we may possibly be able to do something with these properties. However, it is for you to say whether I must go on with these matters on your behalf. If not, I can place them elsewhere, I have no doubt. But they are yours first, and if you give me the authority I will secure them and deal with them for you. I come next to the concession mentioned in the notice paper. In this matter I am no intermediary—no profit-making intermediary, that is. Whatever price I give for this concession it comes to you for the same price. I do not stand to make £20,000 or £30,000 or £40,000 out of the deal. I want you to get the thing at the price I am giving for it, and I shall get nothing out of it. The price which is asked from me is the price at which it shall be handed over to you. (Cheers.) The concession is one granted by the Portuguese Government to two gentlemen for the development of the mining and the industries over the territory mentioned in the concession. The concession is granted by a charter of the Portuguese Government. The territory is bounded on the north-north-east by the great Limpopo river, on the south by the Inkomati and the sea coast, and on the west by the Transvaal. Altogether the territory comprises about 15,000 to 20,000 square miles. In the concession it is stated that rights of administration and all other rights are granted by the charter. The scheme is so vast that it cannot compare for a moment with the grant of a few hundred mining claims or some 6000 acres of property. The whole area of Wales is only 7378 square miles, of Belgium 11,373, of Holland 12,582, of Denmark 14,789, of Switzerland 15,469, and of Natal itself 20,461 square miles; so that in this concession we have a complete colony, with a grand river, touching the south-east corner of Matabeleland, and trending along the borders of the Transvaal, with gold fields all along its course. The River Limpopo can be utilised by people who know the country to great advantage in the way of trade. The possibilities of the country are beyond conception at the present time, and there is more in it than anyone can realise now. There is no doubt a great trade could be developed. Then we have all we could desire in the way of mineral rights. Precious stones have been discovered in several parts of the territory—diamonds, amethysts, and others. We have the right to make railways and to lay down telegraphs, though I do not suppose the niggers will find much use for the telegraph or the telephone yet awhile. (Laughter.) We have the right to build townships and to make a port. Of course, the question naturally arises, How is this vast country to be developed, and who will do the work of development? You will agree with me that what is required is brains and energy and time. If we in this company have the brains and the energy to turn these advantages to our own profit, we can certainly reap a great benefit to the company. Apart from its development, however, the country, under wise and just administration, will at once yield a large revenue. If a hut tax were imposed, it is estimated that that alone would yield from £50,000 to £250,000 a year. That of itself is a big income. The cost of administration would not be great; all that would be required would be care in the administration of the staff and in the treatment of the chiefs. There are men who have been for years in the territory who would be ready to co-operate with us, and would take a prominent part in the administration, and would help us to do the thing well. Having given you this information regarding the territory, I will only say further that there is, of course, a great deal yet to be done to put the thing into shape, and I come here to-day to ask you if you approve of what I have already done in your behalf. I am not wanting to be dictator, I do not wish to utilise my position as Chairman to say to you, "Take this property and deal with it." I come here to put the matter before you fully, believing that, as you did at the last meeting, you will place confidence in me, and if you tell me to go and do the work on your behalf I am prepared to use my best endeavours to secure this property for you, taking due care, of course, that no expenditure is incurred and no documents are signed until both you and myself are satisfied that everything is in proper order, so that you may have due security. These are my ideas as to how the thing may be worked. The administration of the territory you would perhaps leave to me and two or three others who know the country. I have been there since 1881, and I could go through the whole country with a walking stick. If we deal judiciously and carefully with the chiefs and the people, I have no doubt we have an era of great prosperity before us. I will now answer any question that any shareholder may wish to put, and then I will ask you to approve or not of our taking over this concession.

In answer to questions, the CHAIRMAN said that all the money necessary to take over the concession had been guaranteed. He had taken precautions that the few thousands pounds that would be wanted at first would be ready. As to whether there were gold deposits in the territory, he said that, of course, it was a new country, but there was every reason to believe that there was gold in many parts. Indeed, samples had been taken which yielded from a few pennyweights to 40 or 50 ounces to the ton. The concession was direct from the Portuguese Government under a charter, and the territory was admitted to be within the Portuguese sphere; so that he did not anticipate that there would be any difficulty as regarded title. That, however, would be thoroughly investigated. He did not propose to make any call upon the shares at present. The agricultural land was mostly high land, and there was a large native population. He did not anticipate there would be any difficulty with the natives. If they were judiciously handled they could all be brought into line, and would be of great advantage in the development of the country. Of course, he did not propose to go at once with an armed force and with Maxim guns to coerce the people. If treated fairly his experience was that these people liked British rule. They would have to organise a police force for the preservation of order, but that would be all. As was stated in a Parliamentary Blue-book, in 1890, there had been a great desire expressed by the natives for the opening up of trade relations with England. He believed that a hut tax would, from the first, yield more than would cover the cost of administration. There was no idea, so far as he knew, that the territory was likely to come under British protection. Of course, some people believed that eventually the Transvaal and the whole of South Africa would come into possession of the British; but, if it did, the company would still be there with its rights. He did not want them to declare war, either against the natives, against the Transvaal or Portugal or anyone else. If they secured the concession at a reasonable price, they might—following the example of the British South Africa Company—organise subsidiary companies, and in that way make large profits. Of course he did not say that the Gwelo Company could work the whole thing itself. All the obligation they would be under would be to pay a tax of 7½ per cent. of their profits to the Portuguese Government. That, he thought, was a very little thing. As to the necessary capital, he hoped shortly to have £50,000. But he would again ask the shareholders not to give way to scare and sell their shares at the present price. Let them support him in improving the position of the company, and the value of their shares would quickly increase.

The CHAIRMAN then moved:—

That this meeting adopt certain options acquired by Charles J. Fauvel, Esq. (the Chairman), for the acquisition of a concession of territory in South Africa, bordering on the Transvaal, in extent upwards of 20,000 square miles, and having a population of about 2,000,000 of people, over which territory the concessionnaires control the rights to all minerals, the collection of taxes, a free port, the building of a port township, and other valuable rights, comprising railways, telegraphs, and public works, and empower the Chairman to carry same into effect.

Dr. PETTIFER seconded the resolution, which was put, and carried unanimously.

A vote of thanks to the Chairman, moved by Mr. JONES, and seconded by Mr. TOMLIN, was put, and carried unanimously.

WESTERN AUSTRALIA'S GOLD RETURNS FOR APRIL:—

	Ozs.	Dwt.	Grs.		£	s.	d.
Coolgardie	10,231	14	7	.....	38,880	10	4
Ashburton	20	0	0	.....	76	0	0
Yilgarn	1,030	8	7	.....	3,991	11	6
Pilbarra	2,039	0	0	.....	7,748	4	0
Murchison	5,785	0	0	.....	21,983	0	0
Ashburton	2	1	0	.....	7	15	10
	19,128	3	14		£72,687	1	8

HAMPTON PLAINS EXPLORATION COMPANY, LIMITED.

Satisfactory news regarding the old mines.—A new company registered to work the new properties discovered.

The first general meeting of the Hampton Plains Exploration Company (Limited) was held yesterday at the Cannon-street Hotel, E.C., under the presidency of Mr. SAMUEL GREEN, the Chairman of the company.

The SECRETARY (Mr. R. H. M. Hill) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen—As you are aware, this is the statutory meeting of the company. It does not often fall to the lot of a Chairman who has to address you on such an occasion to be able to give you very valuable information, especially when the company with which he has to deal is situated at the Antipodes, and the company is so young. However, on this occasion I think I am more favoured than usual, for I hope that I have at all events some few facts to tell you, which so far as they will go will be of interest to you. Perhaps, in the first place it will be right for me to allude to the two companies which were amalgamated and formed into the present one—the Garfield and the Pittsburg; and with reference to both of them, I may say we continue to receive fairly satisfactory news. As regards the Pittsburg, we have succeeded in selling a vast quantity of tailings which had been hanging on our hands a very long time, and which we had almost despaired of parting with. That has brought us in $3100. We hear, moreover, that the neighbouring mine—the Morning Star—has in its tunnel reached a ledge of quartz, and that some of the finest ore ever got out of the Pittsburg mountain has been met with. The details, of course, we are not very familiar with. That only goes to show—and I do not wish to state it for more than that—that your property there was, at all events, worth an effort to preserve, in the hope that it may, with the full of the developments of the Morning Star, at some time prove of substantial value to yourselves. With reference to the Garfield, we are still just paying our way. The gold camp I mentioned to you on a former occasion is still finding gold, and in some cases gold of considerable value. When opportunity occurs I trust we shall have some chance of participating in these discoveries, and, at all events, in the La Panta Mine, in which you are aware we hold a fourth interest, they are finding the richest body of gold that they have found in the history of the mine. How far it will extend it is impossible for me to say, but again I mention this as a matter of interest to show your old properties, if they have been asleep, are not yet dead, and may be a source of considerable profit to you in the future. Of course, in the Garfield you are aware you have an enormous body of silver ore, and if the value of silver should increase your prospects will be brighter still. But that which you will care most to hear about is the business in Australia for the purpose of which this company was formed. This company was formed, as you are aware, under an agreement with the Hampton Plains Estate, securing to itself the privilege of prospecting on that enormous and valuable estate and dealing then with any discoveries that it might make. We were fortunate, in the first place, in having a gentleman who was our manager here—Mr. Morsing—who had been so greatly interested in our old companies, and who has such enormous interests in West Australia, and in the Hampton Plains Estate. We were fortunate, moreover, in having his partners who were working out there—Mr. Hooper and Mr. Mercer—both of them, as shareholders, are interested largely in the working of our old mines. You will be aware that for three years when our Garfield Mines were doing well, Mr. Hooper was out there as your first superintendent. You will also remember that Mr. Mercer took up the Pittsburg mines at a time when they were very promising, that he worked hard and well for us, and earned our thanks, although from circumstances beyond his control the prospects of the property became clouded and dark. At all events, there we had two gentlemen who knew your property, and who knew the general interests concerned, many of whose friends were largely interested in it, and who could not fail to throw all their energies into the scale on behalf of this company, to which they had been so long attached. Nor have we any reason to be disappointed in what they have done; on the contrary, I do not think it would have been possible for them to have done more than they have for us. In the first place they were asked to look to Block 50 on the Hampton Plains Estate, which had been mentioned as having the best prospects in the property. They looked, and with considerable success. The company had been scarcely formed when they telegraphed that they had pegged out two blocks of 25 acres each on this Block 50. Perhaps it will be interesting to you if I read some of the telegrams which have been received with reference to what they have done, and then I will tell you what we have done with reference to their discoveries. The first telegram from Mr. Mercer was to say that 50 acres would be pegged out immediately. Then he said:—"I have to confirm my cablegram informing you of the pegging out of 50 acres on Block 50. This matter has had immediate attention, and by the end of the week the ground will be pegged out—two 25 acre blocks on the best part of the reefs as far as we know at present." At the end of last week we received the following cablegram from Coolgardie:—"Hampton Plains Exploration Company (Limited) are in good ore; average sample taken from 8 feet deep gave 3 ounces to the ton. We have surveyed the plains, and the greatest length is now east and west so as to include a third reef. Expenditure has increased to £150 per month." Yesterday we received the last telegram:—"Main Reef. This reef is a splendid one, and extends the full length of the property. Main shaft is down 12 feet; width of the vein in the bottom of the shaft is 3 feet. Have not yet struck hanging-wall on the footwall; the ore continues so far very good. —Blue reef. Six chains to east of the main reef its continuity has been proved by trenches. Width of vein is 2 feet 6 inches, showing traces of gold.—White reef. Six chains further east have commenced shaft; reef promises to become large. Up to the present there is not sufficient development to form a very decided opinion, but, generally speaking, the prospects are encouraging, there is no doubt of that. We are uncertain about the White reef, but from specimens I recommend further prospecting it. We will set men on prospecting immediately." Well, gentlemen, we have still further good news, which I think you also know. It was never our intention to work the properties we discovered. It was our business to find other companies to work them, and to be repaid by them in shares. Our business was that of a prospecting company, but it was not always easy to get up a fresh company when you want it and have a property to dispose of. In this case we had one ready to hand, and the Hampton Gold Hills Company has been registered; there is no doubt whatever about its being successfully carried through. It will take over from us and work that which we have discovered. We shall, of course, receive only a small sum in cash at first, but that will put us in the position that we shall have our capital so far intact, and they will pay the expenses which we have already incurred in prospecting the property, besides paying us a considerable sum in shares when they have further developed it, and seen that the property is as good as it promises to be. I have further to tell you we have got leave to prospect on another portion of the Hampton Plains Estate, which is considered to be, again, one of the most valuable blocks, but from which we were precluded by our original agreement, because it was practically sold to one of the largest London houses. We have been prospecting upon that, and I think it will be not many days before we find there we have a second property, and we shall be only too fortunate if we can find another company as readily as before, and part with that property on similar terms, as we have also prospectors on another portion, which is considered one of the very best—namely, Block 45. In these busy days you do not want to hear any long oration or any views prophetic of the future. Your object was, I presume, to hear what has been done, and what we are endeavouring to do. In these few words I have endeavoured to make clear that we have not been idle, and have been successful beyond our most sanguine anticipations up to the present moment, and although our prospects may still be subject to prophecy, they are as good as they could possibly be, and better than we had hoped them to be at this early stage of our career. Any questions, so far as they may legitimately come within my province to reply, I shall be only too pleased to answer to the best of my ability.

Mr. WEST asked whether the whole of the shares had been taken up.

A vote of thanks was accorded the Chairman, and the proceedings then concluded.

GOLDEN CROWN, LIMITED.

The workings improving weekly.

The first ordinary general meeting of the Golden Crown (Limited) was held on Thursday at Winchester House, the Hon. HOWARD SPENSLEY (the Chairman) presiding.

The SECRETARY (Mr. C. F. Shackel) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—Those of you who during the last few months have become shareholders, or who have read the mining newspapers, have no doubt continually read and reread the Chairman's opening address, in which he says: "This is an ordinary statutory meeting, held in accordance with the Act of Parliament." I do not know how it is possible to vary that statement. This is simply a meeting which is convened by the directors under the authority and by the direction of the Act of Parliament, which we usually call the statutory meeting, and, as we are here, it will be my pleasure to tell you exactly what has been done and what is doing now, and the prospects we have for the future in connection with our company. Now, shortly, gentlemen, the company was registered on March 7 last. We went to allotment on March 11, and we had applications from 1218 persons for 222,281 shares; but, as we only had 100,000 to allot, I may tell you that we used our best endeavours to divide those applications among them. As we divided the 100,000 shares amongst 1114 applicants, there are no large blocks of shares held by any individual person. The working capital, according to the prospectus, is £25,000, which we have intact now excepting the expenses which have been incurred in connection with the mine. The property was transferred and registered in the name of the company on May 14 last. The present number of shareholders now amounts to a little over 1200. Since the initiation of the company we have, as directors, been doing our very best to make this property of ours a substantial and dividend-earning business. We were fortunate in securing Mr. Kaufman as our consulting engineer, who is not only an able man, but I believe one of the ablest men in the colony of Western Australia, who is at the present moment actively engaged in superintending the conduct of our affairs. We have been sinking shafts, and according to the latest telegram which I shall read to you, we have got down to about 130 feet. At 150 feet we are in expectation of striking water. Now, it is important to the company that we shall obtain a large and continuous supply of water on our property, for the purpose of the crushing plant. We are hoping to do so, as some of the neighbouring mines have struck a liberal flow of water at 150 feet. When we have sunk another 30 or 40 feet we shall know to what extent the water is obtainable. Winding and pumping plant are already erected on the mines in the expectation that the pumping plant will at once be brought into active operation. The latest news we have in connection with the mine is dated June 25, and it is from Mr. Charles Kaufman. He says:—"The workings show considerable improvement during the last month. Depth of north shaft, 130 feet; depth of south shaft 116 feet. At the bottom of the north shaft encountered a rich streak of gold ore, carrying coarse gold; extent yet undetermined. We are now starting to connect shafts for the purpose of securing good air. Shall drift both ways examining and prospecting on the course of the vein. In the inclined shaft south of workings show considerable improvement; coarse gold is visible throughout, a great deal more than for some time past. We are now starting to sink a vertical shaft; shall sink until we reach the water level, I think at a depth of 150 feet. The grade of ore is very good, with exceptional rich chutes of ore." Now, gentlemen, that is the last information in the possession of the company, and it is the intention of the directors on receipt of information, whether it be good or bad, to at once publish it in the organs of public opinion. Gentlemen, I do not know that I can tell you any more. I have already explained exactly the position of affairs. If there is anything I have not made sufficiently clear I can only say I and my brother directors will be only too glad to afford you every information.

A SHAREHOLDER enquired what would become of the mine if they did not strike the water in sinking the shaft.

The CHAIRMAN said he was not going to imagine that, but he would take it that such a thing was possible. Water had, however, been struck in the White Feather district, where their mine was situated, and if this company did not strike it they would have to obtain water elsewhere. There was an extensive lake within two miles of the mine, and water would be procurable from that source.

A SHAREHOLDER asked if any steps had been taken with regard to putting up machinery on the property.

The CHAIRMAN replied that pumping and winding machinery had already been erected, and crushing plant would be put up as soon as Mr. Kaufman had determined, which was the best for the purpose.

Mr. HODGSON, in proposing a vote of thanks to the Chairman and board, expressed great satisfaction at the fact that the directors had every confidence in Mr. Kaufman, their manager at the mine.

Mr. DIENER seconded the motion, which was carried unanimously.

The CHAIRMAN, in acknowledging the compliment, assured the shareholders that the directors would do all in their power to make the company a success.

The meeting then terminated.

DE LAMAR MINING COMPANY, LIMITED.

A new saving process wanted.—Increase of the gold product.

The fourth annual general meeting of the De Lamar Company (Limited) was held yesterday at Winchester House, Mr. FRANCIS MUIR presiding.

The SECRETARY (Mr. C. Pakeman) having read the notice convening the meeting.

The CHAIRMAN, who was received with applause, said: Gentlemen—I presume it is your pleasure that the report and accounts be taken as read, and I will, therefore, at once proceed to make such remarks upon them as suggest themselves to my mind. The accounts, as usual, are, I think, as full and plain as they can possibly be made, and hardly call for any remarks, but there are just one or two items to which I should like to refer. First, as to the bullion and ore reserve account, which you will observe has this year been increased by the sum of £1394 17s. 7d. I explained last year, fully, the origin and purpose of this account, and that it was, in fact, a sort of dividend equalisation account. This year, when we were declaring the final dividend and bonus in April, we quite expected to have to draw upon it to the extent of some hundreds of pounds; but the decision of the Supreme Court of the United States as to the unconstitutionality of the income-tax has set free £2000 which we had reserved for that payment and enabled us to add to, instead of deducting, from the account in question. (Cheers.) Expenses in the London office have considerably increased in connection with the issue of share warrants; but so have the receipts, and to a larger degree. The duty of 1½ per cent. payable in respect of such transfers has been treated as a capital item, so, practically, creating a small cash reserve which will doubtless prove useful some day. You will, no doubt, understand that these warrants, once issued, may pass from hand to hand without registration at the office, and the buying and selling of the shares they represent ceases, therefore, to be a source of revenue to us. It seemed only prudent, therefore, to deal with such amounts as we have done. The amount already received, or in course of being received from this source, is about £3500, all of which we purpose investing in first class securities. Unexpended capital stands at the satisfactory figure of £41,229 7s. 7d., and we have now finally disposed of the cost of adjoining claims purchased. We have no special expenditure on capital account at present in view, but we hope at no distant date some improved process for treating our ores may make demand upon it, which we will gladly sanction. The results of the year's working are fully set forth in the reports. The net tonnage extracted of milling and smelting ores was 45,569 tons, against 39,263 last year, and the total product of the mine was of the value of £194,491 10s. 5d., as compared with £210,616 16s. 8d. last year. Of this deficiency £8000 is accounted for by a further fall in the value of silver. Continuing the policy previously introduced, the increasing capacity of the mill has been met by reducing the value of the ore treated. The idea has been that a quarterly dividend of 1s. per share with any surplus dividend, in the shape of an annual bonus, is a very fair showing for any mine, and something worth trying to maintain as long as possible. You will observe how the gold product has increased, and the silver diminished, but along with that, unfortunately, has come diminished savings, owing to the presence of fine float gold, most difficult to capture by our present process of pan amalgamation. You will better understand, therefore, our great anxiety to discover some saving process better suited to our ores, and I trust that before very long our efforts in this direction may meet with their reward. I should also like to draw your attention to the satisfactory reduction in mining and milling costs—viz., $10·25 per ton in round figures as against $12 last year, and $15 in the first months of our existence. The main reasons for this are stated in the report, and the saving has not been effected at the cost of efficiency of any department. Before leaving this subject of accounts, let me draw your attention to statement No. 4 published with the report, being a table showing the results of four years' working of the mine in its main features. It appears to me that the record is one which nobody need be ashamed of, and which reflects great credit upon the judgment of the experts, upon whose recommendation the property was acquired for the company, and upon the mine management. The table shows a dry tonnage treated in the mill of 121,899 tons, of the average value of $32 28, and the value of silver diminishing from 94 cents to 62 cents; 1184 tons smelting ore extracted, of the average value of $581 per ton, and a total product valued at £765,692. We have paid in dividends £350,000, or 87½ per cent. of the par value of the shares; and but for the continuous fall in the value of silver, we could have distributed to the shareholders, on the basis of the 1891 price, £108 000 more, or another 27 per cent. We have besides expended £42 711 on the erection of new machinery and buildings, and the purchase of adjoining claims, and we have still unexpended £41,229 of capital out of £60,000 provided. In a word, the original shareholder has to-day received back 87½ per cent. of his investment, which is still worth the market price of the shares, and that again is represented by some £60,000 cash or loose assets, all the machinery, plant, and establisnment, and the mine itself with all its possibilities, which I venture to think are by no means small, notwithstanding what it has already done for us. Now I come to the all important question of the reserves of ore, more important than usual to us, because they again, as last year, show a larger diminution in the figures, and might not unnaturally give rise to the idea that the mine was being rapidly exhausted. It is the most natural thing in the world that the shareholders should desire information on this point from their officials at the mine, and it is also, I venture to think, most natural that a prudent, capable mine manager of a fissure vein mine should be very averse to commit himself to figures, and when he is required to do so, should, in all his calculations, protect himself against possible and easily made mistakes and errors of judgment. Especially must this be the case in so widely extended a property as the De Lamar, embracing not one or two, but a dozen veins, besides innumerable branches and veinlets, and 10 different levels, not including the intermediate. (Parenthetically, I may remind you that the De Lamar Mine is in Idaho, U.S., not on the Rand in South Africa, a fact which, I am informed on excellent authority, is not known by everybody in Paris who is interested in the mine). Therefore, you will not be surprised when I tell you that Captain Plummer, thoroughly capable and conscientious manager as he is, has more than once expressed a wish that he might, if it were possible, be relieved from the responsibility of making this estimate. Now, in order that you may understand the position as it at present exists, I must ask you to go back with me for a few moments to the reports of the two years previous to this, and to the remarks I had the honour of addressing to you from this chair last year. Four years ago, I must remind you, that our incline shaft had reached the ninth level, but that crosscutting towards the vein series had not, or only just, been begun. The eighth level had been pretty fully exploited, and revealed the veins encountered still higher up, coming down strong and large. Judging by the experience gained up to that time there was every indication that on opening up the ninth level the veins would be found as above, and, calculating by the usual methods, Captain Plummer arrived at the conclusion that this level would be good for 40,000 tons first-class ore, which, however, to be quite safe, he put at 30,000 tons, and added to the reserve figures. As he drove on the ninth level, he, however, discovered that the veins, in coming down, had flattened considerably, and had, furthermore, become more or less broken up by intrusions of low-grade ore, and subsequent operations revealed the fact that this change had taken place not very far below the plane of the eighth level. The effect of this was, of course, to disturb and upset his figures already given out, and also to forbid assuming anything for the tenth level, where these disturbances were found in a continued and even aggravated form. So with these two years' experience to guide him he does not now, and will not for the future, take anything in the way of reserves for granted, or that he cannot, so to say, put his hands upon. You will observe how carefully and emphatically he expresses himself upon this point in his report, and in his correspondence with the board he goes more into detail, as follows:—"The reserves as given in the annual report only represent what we can really see and estimate. We have been in the habit (quite common in well-established mines) of estimating tonnage below the bottom levels, and in advance of any levels being driven on ore. This year we have not done this, which gives us a chance of counting on new developments for next year. The changeable character of the veins, especially as shown on the 9th and 10th levels, prohibits the taking into account any speculative amount of ore ahead of the present levels or below them. Should these turn out well the reserves will be benefited thereby if otherwise the tonnage of our present estimate will not be lowered. I have great hopes that we shall find large amounts of good ore in the intervening porphyry lying between the veins. It surprises us very often to see a little thread of ore spring into a respectable vein of rich ore in the dividing blocks of porphyry. It is a mine requiring a systematic exploration by crosscuts, and we are very watchful of this." I think, gentlemen, that this is all the information the board is possessed of in the matter of the reserves; and while it would have been more pleasant to have been able to speak of reserves of 100 or 150,000 tons, I cannot say that the situation, as it presents itself to my mind, is one calling for any special anxiety. The reserves of first-class ore we are dealing with to-day are as large as they were four years previously when the property was acquired, since when we have extracted 120,000 dry tons. A mine which can do that and still present large fields for future explorations and development, not to mention over 100,000 tons second-class ore opened out, is surely not without promise. Before

passing from the mine let me draw your special attention to Captain Plummer's remarks about the new or No. 3 ore body now being opened out in new ground on the 4th level to the westward, and which it is reasonable to anticipate will be found to continue in depth as the older ore bodies have done. Also to the developments from the Summercamp side, and by the last mail we have advices of the resumption of work in the direction of the Stoddard claim, which was discontinued at the time when our relations with the former owners of that property were becoming strained. Generally speaking, I may say that shareholders may rest assured that the exploration and development of their property will be diligently and systematically prosecuted, and that neither effort nor expense will be spared to keep well ahead of mill requirements. At the same time I should like to say here that the quality of the ore supplied to the mill, and the consequent scale of profits, must, to a certain extent, be governed by the progress of developments, and the prospects ahead of us, so far as we can see. Captain Plummer's standing instructions are to work the mine in a miner and workmanlike manner, and we have the fullest confidence that he will do so. As to the improved methods of dealing with our ores, I have little to add to what the report contains. Since we last met, experiments and investigations have been continuously carried on, and I think it is generally admitted that the De Lamar ores are almost unique in their characteristics. It is not that they are specially refractory in the ordinary sense of the term, but that the sliminess or partiness of the pulp presents strong difficulties to the ordinary methods of dealing with the residues. Messrs. Pelatan and Clerici express themselves with the utmost confidence that their process solves the problem, and we shall only be too glad if it should be so proved. Two sets of experiments have already been conducted upon our ores with their experimental plant at Denver, one in the presence of our agent, Dr. Munson, the other under Captain Plummer's inspection, and I had myself the pleasure of witnessing another on a small scale at Milan in April last. Now we are about to have a final series of tests at Denver by Mr. Clerici himself, in Captain Plummer's presence, and we await the result with the greatest interest. If the results are so successful as to warrant the adoption of the process, I will only say that we will do so in the expectation of reduced cost of treatment and increased savings, as regards our first-class ores, and of being able to bring our large supply of second-class ores into use. An interesting feature of our year's work, to which I think I ought to refer, has been the issue of share warrants to bearer in exchange for share certificates and the consequent transfer of a very large number, I think I may say a majority, of our shares into the hands of our neighbours across the channel. The demand speedily outran the original supply, and to-day there are about 220,000 shares held by warrant besides several thousands held in France, Germany, and elsewhere, under ordinary share certificate. It is well known that the Continental public are satisfied with smaller returns upon mining investments than are English investors. It was not, therefore, surprising that there should be large Continental buying into a property with such a record as the De Lamar Mine could show when attention was drawn to it. Nor on the other hand was it to be wondered at that English holders should avail themselves of the opportunity of realising at prices considerably higher than had previously ruled, and, generally speaking, paying them handsome profits. One may venture to hope that the future may be satisfactory to both parties if that be possible. The exchange has entailed an amount of work upon the office staff, and I may also say upon the board, that would hardly be credited save from actual knowledge; but it has been cheerfully performed in the belief that the consequent widening of the market could hardly fail to be of advantage to the shareholders as a body. I should like especially to mention the heavy responsibility and work resting upon Mr. Pakeman in carrying out the work. (Hear, hear.) He had to devise and get into working shape all the forms, books, &c., and the manner in which he has done so has demanded the warm approval of the board, as it has also called forth the high praise of the auditors. The silver question I do not propose to take up your time by referring to. The idea seems pretty general that under present conditions somewhere round about 30d. is its true commercial value, and with that we must rest content. I would only point out that up till now, and from the beginning of our year, the price has been a few cents above our average of last year, and for that we may be thankful. At all events, we can hope that it has done its worst for us, and that any change may be towards an improvement. That, gentlemen, concludes all that it occurs to me to say to you, and if I should have omitted reference to some point on which information is desired, I shall be happy to answer any questions that may be put to me to the best of my ability. (Cheers.) I have now only to announce to that the following cablegram has been received from Captain Plummer: "Matters are generally going on satisfactorily, no change. We have struck ore in the 10th vein on the 8th level, 2 feet wide, assaying $40, one third gold." The Chairman concluded by moving:—

That the directors' report and audited balance-sheet and statements of account for the year ending March 31, 1895, showing payment of dividends of 22½ per cent. upon the capital of the company be and the same are hereby approved and adopted."

(Applause.)

The resolution was seconded by Mr. S. D. GRANT, and carried unanimously.

The election of Mr. S. A. Bennett to a seat on the board in the place of Captain J. R. De Lamar, was confirmed, and Messrs. F. Muir and S. D. Grant were reappointed directors.

Messrs. Ball, Baker, Deed, Cornish, and Co., the auditors, were re-elected at an increased remuneration, owing to a larger amount of work than hitherto having to be performed by them.

Votes of thanks to the Chairman, directors, manager, secretary, and staff, both in London and at the mine, terminated the proceedings.

NEW ISSUE.

SIR WALTER RALEIGH MINING COMPANY (LIMITED).

This company has been formed, according to the prospectus, "to acquire and develop 14 gold mining claims comprising about 240 acres, on the Arakaka Creek, on the Barima Creek, in the north-west district of the colony of British Guiana. Each claim is 1500 feet by 500 feet, or a little over 17 acres." The property has been reported on by Mr. Owen, M.E., who is now on the spot; by Mr. J. F. Connolly, M.E.; and by Mr. H. Buckley, M.E. According to these reports, the property to be acquired "has been extensively explored, and three reefs have been proved, which run through the length of the claims. The work which has been done consists of shafts sunk to a depth of 152 feet, and of levels driven 422 feet, which cut and prove the reefs. Besides these, there are various prospects, holes and open cuts which expose the reefs. From ore taken from these workings two crushings have been recently made on the spot with a two stamp Tremaine Mill. One crushing of 16 tons gave 3 ounces to the ton, the other of 50 tons gave 2 ounces to the ton of 2000 lbs. Mr. Sweet reports that most of these millings took place whilst he was on the spot, three-fourths being extracted from Owen's shaft and the cuttings on No. 6 claim, and the rest from other properties belonging to the owners of the 14 claims, and that the ore crushed was good general sample. Besides the ore in the reefs there is an immense quantity of loose quartz, or float rock, shed from various reefs largely showing visible gold distributed over all the claims, the amount of which is estimated by Mr. Connolly at about 40,000 tons, which estimate Mr. Sweet considers probably under the mark. This can be collected and milled at a cost not exceeding 8s. 6d. per ton."

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ALASKA MEXICAN.—The manager reports the clean-up for May as follows:—"Period since last return 31 days. Bullion shipped, $17,733; ore milled, 6233 tons. Of bullion there came from sulphurets $4772. Working expenses for period $10,485."

ALASKA TREADWELL.—Cablegram from Alaska announces the clean-up for the month of June as follows:—"Period since last return 31 days. Shipment of bullion $87,697. Tons of ore milled 25,991. Tons of sulphurets treated 398. Of bullion there came from sulphurets $28,873. Estimated gross expenses for the period $22,064. This is the largest monthly bullion shipment, and also the largest net return known in the history of the mine."

ALADDIN'S LAMP.—The following cablegram has been received from Mr. C. G. Warnford Lock, the new superintendent at the mines:—"The total return is 5100 ounces of gold—namely, 355 tons of ore crushed have yielded 1600 ounces, and 11 tons 6 cwts. rich ore have been shipped, containing 3500 ounces, including some rich ore stoped during last month and shipped during this period. The stopes still hold good in the north-west end of 500 feet level. I have posted my full report by mail to-day."

BRITISH BROKEN HILL PROPRIETARY.—With reference to the action against the company referred to in the directors' report produced at the general meeting held on 18th June, the following cable has been received this week from the Adelaide committee:—"Verdict, damages £20, each party to pay his own costs."

BAYLEY'S REWARD CLAIM.—The following cable, dated June 26, has been received by this company's London office from its head office at Melbourne. Fortnight's run:—"475 ounces 320 tons."

BONNIE DUNDEE.—The directors have received the following cablegram from Charters Towers:—"Underlie shaft on Victory reef, total depth 120 feet. No. 1 north level, total length 85 feet from shaft. Reef 2 feet, good quality. No. 1 south level, total length 78 feet from shaft. Reef 6 inches, 1 ounce quality."

BLACK REEF PROPRIETARY.—A cable announces:—"Struck solid formation, 71 feet; shaft No. 2 the same as Orion's."

BIG BLOW.—Cablegram:—"As far as can be seen, much pleased with the appearance of Big Blow. Shall commence crushing ore in a month from this date."—Note by the secretary: The above cable is from Mr. W. M. Vivian, who has recently been dispatched from England by the London managers to take over the superintendence of the mines under their control in the Coolgardie district. Mr. Vivian, who has had many years' experience of Australian mining, arrived in Coolgardie about a week ago, and the above message is regarded as highly satisfactory.

CASSEL COLLIERY.—By cablegram just received the secretary is advised that a further dividend of 10 per cent. has just been declared, payable to all shareholders registered on July 15.

COLOMBIAN HYDRAULIC.—The directors have received the following cablegram of the result of run No. 202:—"We have cleaned up after a run of 46 days, during which time we have washed 1000 hours. The gross returns are £2050. The net profit is £1250."

CROWN REEF.—The warrants in payment of the above company's dividend No. 14 of 25 per cent. have been posted to European shareholders.

EL CALLAO.—Messrs. Baring Brothers and Co. (Limited) have received the following telegram from El Callao Mining Company:—"601-625 ounces of gold produced by El Callao Mine for past fortnight, and 1426-1450 ounces by the Colombia Mine."

ELKHORN.—Dividend warrants for the 21st dividend of 3d. per share (free of income-tax) have been posted to all shareholders registered on the company's books on May 31.

FERREIRA.—The London agents have received advice by cablegram from the head office that a dividend of 65 per cent. has been declared. The warrants will be sent from Johannesburg as soon as possible after the arrival of the return of transfers lodged at the office for registration up to one o'clock, on Saturday, 6th proximo.

GEM OF CUE.—The following cable has been received from the company's agents at Cue:—"New shaft looking first-rate. Ore in shaft is improving as it goes down."

GREAT DE KAAP (Moodie's). — Cablegram:—"Rich strikes have been made at several places at Symon's creek, Sheba locality. Pieces of rock containing visible gold, estimated value of over £3000, taken out. Chute of ore has been traced to Great De Kaap property. Great excitement prevails."

GELDENHUIS ESTATE (Randfontein, No. 1 Limited).—According to cable advices from the head office at Johannesburg an interim dividend of 30 per cent. has been declared, payable to all shareholders registered at the close of business on July 10. The transfer registers will be close from the 11th to the July 17, both days inclusive, and the dividend warrants will be issued as soon as possible after the arrival at Johannesburg of the return of transfers lodged for registration at the London offices of the company, 120, Bishopsgate-street Within, E.C., up to 4 p.m. on Wednesday, July 10.

HAURAKI.—The directors have received the following information from the manager by cable:—"Total amount crushed for the month, 60 tons, including 9 dwts. 76 lbs. of picked specimens. The yield has been 3374 ounces of gold. The approximate cost for the month is £1300, and the profit £9000. We are in direct communication with the battery. We have started driving north on No. 3 vein at the 160. The mine is looking well. The directors have declared an interim dividend for the past six months of 2s. per share, payable forthwith on the capital of the company, 320,000 shares of 2s. 6d. each. The transfer-books will be closed from June 29 until July 6, both days inclusive, to prepare for payment of the above."

ISLE OF MAN MINING.—The secretary has sold 100 tons of this company's ore at £8 16s. per ton.

JOHANNESBURG PIONEER.—Output for last month 1155 ounces of gold.

JUBILEE CONSOLS.—Elmslie (Limited), London agents, are advised by cable, June 25:—"More men have been taken on, and the main underlie shaft is being pushed down; working day and night. There is a fine body of ore in the sink, in quantity and quality everything that can be desired. Company's mill is running steadily on ore from the mine."

KANGARILLA SILVER.—Cable from the company's Aclare mine in South Australia: "Assay value of the ore before treatment, 40 to 45 ozs. of silver per ton; extraction silver 46 per cent., zinc 85 per cent." This result has been obtained by the French-Stewart process which has just been started at the above mine. The secretary writes that it may be held to have satisfactorily solved the problem of the profitable treatment of sulphide ores.

KINSELLA.—Copy of cable received from mine manager, June 24:—"Have cut a 5 feet lode in crosscut. The gold is very fine."

LANGLAAGTE ESTATE.—The London agents intimate that they have received cable advice of the declaration of a dividend of 25 per cent., equivalent to 5s. per share for the six months ending June 30, payable after the receipt by the head office (Johannesburg) of the list of shareholders on the London register at that date.

MAINLAND CONSOLS.—Cablegram:—"Have struck rich ore in the vein in the rise in the south drift on the Last Chance claim. We have 100 feet of backs. There is a shoot of rich ore. The developments and workings are sufficient to warrant the purchase of the machinery for crushing.—Kaufman."

MILLS' DAY DAWN UNITED. — The directors have received from the head office in Charters Towers, the following cablegram:—"Have crushed during the month 3075 tons of quartz for 3724 ounces of gold. Further development is necessary. The approximate value of this return is £12,850."

MOUNT LEYSHON.—The Mount Leyshon (Limited) have received the following cablegram, dated June 25, from their manager at Charters Towers, giving the fortnightly crushing:—"1600 tons crushed, 247 ounces gold; 40 stamps mill ran 11 days; profit, £80."

MOUNT MORGAN.—The directors have received the following telegram from the head office, Rockhampton:—"We pay £25,000 on July 1, being dividend of 6d. per share (free of dividend tax) for the month of June."

NEW HERIOT.—Cable dated June 24:—"Have declared a dividend of 50 per cent. to all shareholders registered on June 28, 1895. The warrants for this dividend will be posted direct to European shareholders by the head office in Pietermaritzburg, and may be expected to arrive at or about the end of August next."

NORTH CROESUS.—The following is an extract from a cable of June 14, received by the company, from Messrs. Parker and Parker, of Perth, West Australia.—"North Croesus: Captain Oates reports found reef in old shafts, a sample of it assayed 2 ounces of gold per ton; other reefs undoubtedly exist; is of opinion that the further development of the property is very advisable. We fully believe there is a fair future for the property."

NERBUDDA COAL AND IRON.—Coal sales (May) 1554 tons 4 cwts.

NEW GUSTON.—The directors have received the following cable information from the mine:—"Output May month. Ore shipped, 2199 tons. Value (estimated) $31,440. Mine expenses, $13,300."

NEW QUEEN.—The directors have received the following cablegram, dated Charters Towers, June 22, giving result of crushing for past fortnight:—"250 tons yielding 530 ounces gold. Have drawn upon you for £1000."

NEW KLEINFONTEIN.—The Anglo-French Exploration Company (Limited), as the London agents for the New Kleinfontein Company (Limited) have received the following information by cablegram from Johannesburg:—"The result of the crushing for the month of May was as follows:—From the mill, 2050 ounces, from the treatment of tailings, 725 ounces; making a total of 2775 ounces; as compared with the previous month, 2709 ounces; the number of tons developed was 5200 ounces; as compared with 6270 ounces in April."

NIGEL EXTENSION.—The directors announce that they have received the following cablegram from the manager, as a sequel to a report dated May 25, having reference to the development work now being carried out on the company's estate:—"Struck a rich body of ore in the vertical shaft." The directors have cabled for further information, which they will communicate to the shareholders at an early date.

OPHIR CONCESSIONS AND EXPLORATION. — The directors have received a cablegram, *via* Salisbury, from Mr. Watts, their agent, to the effect that he has arrived safely at Umtali, and that he has secured some claims on behalf of the company.

ORIENT GOLD.—This company (in which the Caratal Mining Company is largely interested) has received the following cablegram from their manager:—"There is a great improvement in the lode in the tunnel, which has been driven a further 14 feet. We think the improvement will continue. Generally, all is going well." The tunnel in the lode is now driven a total distance of 418 feet, opening up ready for stoping about 21,000 tons of ore."

PAHANG CORPORATION.—The directors have received a cablegram as follows, giving the output for the month of May from the two mines now working:—"Sungei Lembing Mines. In 24 days of 24 hours each 575 tons of stone were crushed, producing 27 tons of black tin. 20 head of stamps running. Working costs, $9500.—Jeram Batang Mines. In 10 days of 24 hours each 365 tons of stone were crushed, producing 19 tons of black tin. 20 head of stamps running. Working costs, $2500." The secretary states that the code word meaning the number of tons produced at Jeram Batang is open to doubt.

ROBINSON.—The following cable from the head office at Johannesburg is just to hand:—"Close books 6th to 13th July; declared a dividend at the rate of 6 per cent, payable on receipt of London transfers."

ST. JOHN DEL REY.—The following telegram has been received from Mr. Chalmers:—"Produce 10 days 2nd division June 10,250 oitavas, equal to 1181·6 ounce troy; value, £3972; yield per ton, 6·5 oitavas (·7492 ounce troy)."

SOUTH LUIPAARD'S VLEI.—The following telegram has been received from Johannesburg:—"Experts employed by your instructions more than confirm all statements made by vendors. Fern reef developing splendidly."

WAIHI GOLD.—The following is a copy of a telegram, dated June 24:—"During the present month the air pumps in the cyanide plant have not worked satisfactorily, and have given constant trouble, the frost caused deposits of carbonate of lime which affected the pipes and prevented solutions working properly, from this cause the returns for the month are estimated at £8000. The defective pipes have been replaced by new; from to-day the returns will be satisfactory."

WEST AUSTRALIAN GOLD CONCESSIONS.—The directors have received a cablegram from their representative at Perth, W.A., with reference to the Princess Royal Mine, at Cue, Murchison gold field, one of the company's properties, as follows:—"Butement reports Princess a better showing visible free gold than since last report. The mine looks splendid." A further telegram states:—"Talisman. The pay ore is as rich as ever, and ore in sight will last for two years."

WARATAH.—The following is a copy of a cablegram received from the company's manager at Croydon, North Queensland:—"Depth of underlay shaft 270 feet; stopes 12 feet north and south; reef 19 inches, of an average assay value of £20 per ton; 100 tons ready for shipment; prospects are encouraging."

WAIHI SILVERTON EXTENDED.—The directors of the Waihi Silverton Extended Gold Mining Company (Limited) have received advices from the local committee, dated May 17, to the effect that all the machinery and the majority of the plant had been delivered on the mine, and that the manager anticipated within three months he would be prepared to break ore.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

New African Company.

The report of the directors of the New African Company (Limited) for the year ending 31st December, 1894, states that the business carried out during that period was mainly of a nature preparatory for the larger developments since attained. The capital subscribed was called up in its entirety only in October last; nevertheless, reckoning the assets in hand at the end of the year at cost (that is, the Van Ryn holding being taken at 32s. 6d. per share), the result for this period shows an actual profit realised of £43,312 12s. 4d., or a profit equal to about 40 per cent. per annum on the capital as paid up in instalments. The acquisition of the business and assets of the London and South African Agency has turned out very satisfactory. The cost to this company was £40,000 in fully-paid shares, and £8.095 in cash, and already £41,766 has been realised from the sale of part of these assets. With those remaining, estimated at the approximate cost price of £26,162, the total realised and unrealised amounts to £67,929, and no account has been taken of the value of the goodwill attaching to the business taken over which enabled the New African Company to set to work at once and profit by the experience of previous years. Amongst the unrealised portion of the old agency business is an important interest in the Rand Central Ore Reduction Company, which has subsequently been largely increased. That company, which has for its object the extraction of gold from tailings, slimes, &c., paid last year a dividend of 25 per cent., and it has every prospect of continuing a most profitable and useful investment. Since the beginning of 1895 the operations of the New African Company have increased very largely, and the directors are able to report most satisfactorily as to the results thereof. The original policy which led to the creation of this company has been strictly adhered to, the operations carried out being mainly the creation of good and new values. Various businesses were entertained after close investigation as to their mining merits by the manager of the company, Dr. Magin, and the directors are happy to report that, whilst the market appreciation has increased largely, the intrinsic value has increased, in as great a ratio. The shareholders have already been informed at the statutory meeting last year, that some reconstruction business had been taken up, one of these transactions being the reconstruction of the Van Ryn Company, in which this company has acquired considerable interest and influence. The opening-out of the Van Ryn Estate has given results far exceeding all sanguine expectations. The property being too large to work as a whole, the western portion was formed into a separate company called the Van Ryn West Mining Company (Limited), the formation thereof being undertaken and carried through by the New African Company and others. While the cost of these interests has been covered by profitable sales, the company retains firm stock and options, which at present prices already show a very large profit indeed. Recently the northern portion of the Van Ryn Estate of about 6000 acres was found to contain a new reef, which promises well according to latest advices, although the exact value has not yet been ascertained. About 3500 claims were located on this part of the property. A subsidiary company called the Van Ryn North Exploration and Mining Company (Limited) was, therefore, recently formed, on terms similar to those of the Van Ryn West Mining Company (Limited) to explore and work this portion, and the New African Company has likewise participated substantially in this business. In the adjacent part of the Witwatersrand some mining claims offered to Dr. Magin for prospecting, with option of purchase, were, on examination, found to contain the same reef and leader as the New Kleinfontein Company; and these claims have now been formed by the New African Company into a concern called the Western Kleinfontein (Limited) on favourable terms. The cost of this holding has also been nearly covered, the New African Company retaining a large interest in the firm and option stock. The attention of the company having been directed to the Heidelberg district, two properties adjacent to the Nigel Company were, in conjunction with other groups, taken up, and formed into two separate companies, called respectively the Western Nigel Company and the Transvaal Nigel Company, from which the directors anticipate results satisfactory in all respects. Various other businesses in gold and coal properties, showing good prospects of success, have been carried out by the company,, and others are under consideration. The directors are greatly indebted to Dr. Magin for the practical mining knowledge he has displayed in connection with the proposals which have come before the company. The business of the company has grown so large that Mr. L. Bauer, formerly mining inspector to the Transvaal Government, has been appointed assistant engineer, and the staff has otherwise been augmented so as to be adequate to the increasing operations. The directors have conferred with their principal shareholders and supporters in London and Paris as to whether they should or should not distribute the profits earned in the year ending December 31, 1894. They find that the general opinion is that no dividend should be declared for the present, and that it would be more beneficial, in view of the increasing business, and of the many opportunities being offered for the profitable employment of the money now in hand, if the profits were carried over to those already earned for the year 1895; this would enable the board, later on, to recommend, when desirable, a large and substantial distribution. The directors trust that the general body of shareholders will also concur in this view. The directors are satisfied with the business taken up and the methods employed; taking a moderate view of the present value of its investments and options, this company appears to have already earned a profit of several times the amount of its issued capital. Through the position it has acquired in the Tranvaal, it will be able to benefit largely by the continuing prosperity which is undoubtedly in store for the South African Republic, and especially for its mining industry. The New African Company has the strongest financial support both in London and Paris, and generally on the Continent, and is thus able to take full advantage of any good business that may come before it.

Bonnie Dundee Gold Mines.

The report of the directors for the year ended December 31 last states that the receipts from the company's 20 stamp mill for the year amounted to £11,700, from gold won £1387, and from tribute percentages, sales of tailings, &c., £527; together £13,614. The total expenditure was £12,376, leaving a balance at credit of revenue account of £1238, which, with the sum of £377 brought forward from 1893, gives a total of £1615. Out of this sum the directors have paid the dividends on the preference shares, carrying forward £890 to the next account. The expenditure on the new (No. 3) shaft amounted at December 31 to £10,736, and on new machinery to £4689. The Queen Cross reef was cut at 600 feet and the Victory reef at 1090 feet. At the present date the shaft is 1150 feet deep, and the Victory reef has been followed down on the incline 120 feet, and levels started both north and south on the lode. Test crushings yielded 233 ounces of gold from 138½ tons of quartz, being an average of 1 ounce 13 dwts. per ton. There is every reason to expect that the Victory and other reefs already passed through will, when opened up, yield good returns. The latest information from the mine is contained in the following cablegram from the managing director, dated Charters Towers, June 22:—"Underlie shaft on the Victory reef. Total depth 120 feet.—No. 1 north level. Total length 85 feet from shaft; reef 2 feet, good quality. —No. 1 south level. Total length 78 feet from shaft; reef 6 inches, 1 ounce quality." These levels having been started, stoping and monthly crushings may be expected at an early date.

Geldenhuis Estate and Gold Mining Company, Elandsfontein, No 1 (Limited).

Advice has been received by cablegram from Johannesburg that at the special general meeting convened for June 25 the provisional agreement entered into with the Treasury Gold Mining Company (Limited) has been adopted. Accordingly, the latter company will receive six claims in the mynpacht of the Geldenhuis Estate and Gold Mining Company (Limited), and 3·4 claims outside the mynpacht, with certain plant, as well as a lease of a small strip of the mynpacht, for the purpose of surface working, in exchange for 35,000 shares, fully paid-up, of the Treasury Gold Mining Company (Limited).

Lower Roodepoort (Limited).

The following has been sent to the shareholders:—"I have pleasure in informing you that the last sample of quartz taken haphazard from the mines, and assayed by Messrs. Johnson, Matthey, and Co., has given 12 dwts. 12 grains of gold to the ton. The following information has just been received from the manager at the mines:—'The working of the property is proceeding satisfactorily. The northern, or No. 1 reef, is well defined and about 5 feet wide, showing coarse heavy gold. No. 2 reef contain a large body of payable ore. I expect the reef will be struck at about 300 feet, and should give at least from 12 to 15 dwts. of gold to the ton. There is water in abundance.' The manager concludes:—'The mine is not only valuable as an outcrop mine, but as a deep level."

Carlyle Gold Mines.

The following has been sent to the shareholders by the secretary:—"I am instructed by my directors to communicate the following information to the shareholders as to further proceedings since the statutory meeting held on February 26. The Chairman on that occasion announced that the London board were daily expecting a cable stating the result of the first crushing. It was intended to crush 200 tons of ore, but it was discovered that the battery which the company were temporarily renting was not sufficiently equipped, and gold was being lost in the operation. 92 tons of ore were crushed, yielding about 10 dwts. to the ton, realising £165. The local manager, therefore, stopped the crushing, and cabled to your directors the reason for so doing. It was then decided that the requisite additions to the battery should be supplied, and your board sent funds for that purpose—but at the same time they are seriously considering the purchase of a battery for the company, which will most certainly be justified by the advices which have been received from time to time from the mines. Your directors have also the pleasure of announcing that one of their body, the Hon. M. Hume Black, who left England for Australia on May 24, has kindly consented to visit your property, and personally arrange all matters in the interests of the shareholders. The Hon. M. Hume Black is late Minister of Lands for Queensland, and has had considerable experience in mining matters, and the board congratulate the shareholders on the exceptional opportunity thus afforded them."

— A cable message has been received from the head office of the CITY AND SUBURBAN GOLD MINING COMPANY (LIMITED) stating that the scheme of reconstruction has been carried. Due notice will be given of the date of the final closing of the books in London.

— The adjourned extraordinary general meeting of the NIGEL GOLD MINING COMPANY (LIMITED), which was held at Pietermaritzburg on the June 21, has been further adjourned for a fortnight.

— We are requested by the secretary of the RAND RHODESIA EXPLORING COMPANY (LIMITED) and the RAND WESTERN SYNDICATE (LIMITED) to state that Mr. C. J. Tapp is no longer a director of these two companies.

— The DAY DAWN BLOCK AND WYNDHAM GOLD MINING COMPANY have sold, through Messrs. Johnson, Matthey, and Co. (Limited), bullion ex. s.s. *Duke of Argyll* for £4562 0s. 11d.

— The MOSMAN GOLD MINES have sold, through Messrs. Johnson, Matthey, and Co. (Limited), bullion ex. s.s. *Duke of Argyll* for £3072 3s. 8d.

— The GELDENHUIS DEEP (LIMITED) 5½ per cent. debenture bonds, in exchange for the provisional scrip, are now ready, at the offices of the London agents, the Exploration Company, 30, St. Swithin's-lane. Coupon No. 1 of the 5½ per cent. debentures will be paid at Messrs. Smith, Payne and Smiths, 1, Lombard-street, E.C., on and after July 1.

— The directors of the HALKYN MINING COMPANY (LIMITED) have declared and paid (June 24) a first interim dividend for the current year of 2s. per share.

— The transfer books of the CEARA HARBOUR CORPORATION (LIMITED) will be closed from the 21st inst. to the 30th inclusive.

— The dividend declared by the board of the WEMMER GOLD MINING COMPANY (LIMITED) is 100 per cent. The register will be closed from July 9 to 13 inclusive.

— The directors of the ALADDIN'S LAMP GOLD MINING COMPANY (LIMITED) have declared a further interim dividend of 2s. 6d. per share (free of income tax) to be paid on July 19. The transfer-books will be closed from July 9 to July 19, inclusive.

— The CONSOLIDATED GOLD FIELDS OF SOUTH AFRICA (LIMITED) notify that owing to the transfer work it has been found impossible to post the share registers of the 6 per cent. preference shares and balance them by July 1, the date on which the half-yearly dividend is payable. It is hoped, however, that the warrants will be issued within 14 days from that date. Mr. Charles T. C. Watkins having tendered his resignation as secretary, to the directors, they have accepted the same with much regret. It is also notified that Mr. James Prinsep has been appointed the secretary of the company, and that he will take up his duties on July 1 next. Mr. Henry D. Boyle will continue to act as the assistant-secretary, and will have charge of the registration and transfer department.

Professor Boys, Professor H. B. Dixon, Dr. Dupré, the Rev. F. J. Smith, and Professor Unwin, who have been requested by the Secretary of State for the Home Department to enquire into, and report on the manufacture, filling, and use of gas cylinders, commenced their enquiry on Monday at the Home Office. Professor Unwin was elected Chairman. In the afternoon these gentlemen visited Brins' Oxygen Works.

GROOTFONTEIN EXPLORATION COMPANY (LIMITED). — The letters of allotment and regret have been sent out.

ON DEEP MINING IN MEXICO,

AND THE CHANGES THAT OCCUR IN THE COUNTRY ROCK AND VEIN FILLING IN DEPTH.*

By EDWARD HALSE.

Part I.—Nature of Country rock and Depth already Attained.

In several of the historical mining camps of the Republic of Mexico, a great similarity is traceable not only in the general structure of the metalliferous veins, but also in the general character of the rocks which they traverse. Thus in the Veta Madre district of Guanajuato, commencing at the surface, there is usually a red conglomerate from 35 to 65 feet in thickness, succeeded by a greenish rock, which is generally regarded as a talcose schist of probable Devonian age, from about 1100 to 1250 feet thick, in which is contained the zone of greatest richness, followed by a black and very pyritic aluminous schist, containing kidneys and threads of milky quartz, the bottom of which has not been reached by the deepest workings (between 1900 and 2000 feet), and in which the veins become very nearly sterile. The "country" is crossed by dykes of diorite (*roca verde*), which are considered by the miners as having a favourable influence on the vein contents. It should be noted that in the Veta Madre the important mineralisation only begins at about 260 feet in depth, or below the *colorados*, which class of ores will be referred to later.

Again, at Zacatecas there is generally a red conglomerate near the surface, below which is a considerable thickness of greenish rock, considered by most Mexican geologists as an eruptive porphyry or diorite, but which M. Laur regards, and apparently with good reason, as a grauwacke, or much-altered sedimentary rock, succeeded at a depth varying from about 800 to 1000 feet, by a black argillaceous schist with kidneys of milky quartz, in which the veins rapidly decrease in richness. Dioritic masses or dykes also traverse this region.

In both these instances, it will be observed, a decisive change in the country rock in depth is followed by a decisive impoverishment of the lodes. The problem has still to be solved whether another ore-bearing zone exists below the black schists. As the lodes generally maintain their characteristic strike, dip, and thickness, and are mineralised in this rock—the filling consisting mainly of blende, iron pyrites, and quartz—the existence of another rich zone beneath is at least possible. The strongly-defined lodes, moreover, have every appearance of having been filled by ascending thermal solutions.

In Pachuca and Real del Monte, at present the greatest silver-producing districts of the Republic, the formation is distinctly crystalline, and is that known as metalliferous porphyry (*pórfido metalífero*). A microscopic examination of typical examples shows the rock to be an amphibolitic andesite, or a similar rock to that forming the "country" ("Grunstein") of the chief silver-bearing veins of Schemnitz, Hungary. But M. Laur points out that towards the south-east, the crystalline structure gets less and less, the rock passing in a continuous manner to layers of clay porphyry, to bands of compact felspar, and finally to beds of true schists striking nearly north 35° west, and dipping south 25° west. Hence it would appear probable that the rock is not in reality of eruptive origin, as generally supposed, but was once sedimentary, and has become crystalline through extreme metamorphism. At Pachuca and Real del Monte, depths of about 1650 and 1569 feet respectively have already been attained; and the veins as yet show no indications of impoverishment.

Part II.—The Three Zones.

There are usually three vertical zones distinguishable in the veins—two generally productive ones, the upper or the *colorado*, and the intermediate or *negro* zone; followed by a lower zone, unprofitable to work, although, as has already been pointed out, usually distinctly mineralised. The *colorados*, red or oxidised ores—equivalent to our term gossan or Iron Hat; German, *Eiserner Hut*; French, *chapeau de fer*; and Peruvian, *pacos* or *cascajos*—the result of surface infiltrations and consequent decompositions, vary greatly as regards depth to which they reach, not only in different districts and in different veins, but even along the course of one and the self-same vein. Stated in general terms, the line of division between these and the *negros* —black or sulphide ores—occurs between 262 and 328 feet, and in longitudinal section would generally be represented by an irregular wavy line. The two zones, however, occasionally overlap, and sometimes the transition zone contains little or no ore. In porous rocks the transition zone may extend to considerable depths. This is the case in Tasco and Catorce, in both of which districts limestone predominates. In the latter the transition zone ranges, in certain instances, from 300 to 500 feet in vertical depth.

In the Mineral de Charcas (State of San Luis Potosi) the line of separation occurs between 164 and 197 feet. In the larger veins of Zacatecas the *colorados* often reach a depth of from 250 to nearly 500 feet, whereas, in smaller veins—*e.g.*, those immediately to the south of the city, they only extend to about 100 feet, and in some cases even less. This would appear to indicate that the depth to which the *colorados* extend, depends, to a large extent, on the size of the vein. The filling of very wide veins is usually much looser in texture than that of small ones, and, moreover, the "country" on either side of the walls of the former has generally been considerably altered by the ascending thermal solutions, rendering the rock more accessible, therefore, to the "vadose circulation" than is the case with unaltered "country."

The line of separation of the two zones usually occurs at or near the "water level" (ground water), but not always so, for sometimes the oxidized ores do not reach it by many feet, and occasionally they are found below it. When the latter occurs it would appear to be an evidence that the ground water was once lower than its present level. When the veins contain at and near the surface a large amount of black oxides of manganese they have a scorched appearance, and this upper or surface zone is known to Mexican miners as that of *quemazon* (from Spanish *quemar*, to burn), and the ores as *quemazones*. Such is the case at Pachuca and Real del Monte, State of Hidalgo, and the *quemazones*, consisting of oxides and hydrated oxides of manganese with native silver, are succeeded by the ordinary *colorados* (of which in reality they only form a variety). Below these latter come the *negros*, there known as *pinta azul*, the filling consisting of quartz, coloured grey-blue by fine impregnations of silver ores (argentite, proustite, and native silver with some galena, iron, and copper pyrites). In a number of veins the manganiferous gossan is absent.

In Tasco, State of Guerrero, the *colorados* are known to the miners as *tepostel*, a special term *ixtajales* (Peruvian *llampos*), being reserved for oxides of iron of an earthy aspect. In the silver veins of Mexico the *colorados* frequently contain finely-disseminated native silver, just as in the tin districts of Cornwall gossan often presents finely-disseminated cassiterite, and the

* Paper read before the recent meeting of the Institute of Mining and Metallurgy.

"iron cap" of gold-bearing veins is not infrequently sprinkled with native gold. In a porous country rock the *colorados* often attain a great depth, whereas in a close-grained impermeable rock the reverse is the case. At the Santo Domingo Mine, Corralitos, State of Chihuahua, the oxides go down 700 feet, and at Mazapil, State of Zacatecas, where limestone predominates, the bottom of the *colorado* zone has never been reached, although the workings have attained a depth of over 1300 feet (400 metres).

At Ramos, State of San Luis Potosi, the red ores reach only from 50 to 70 feet; likewise in the district of Angangueo, State of Michoacan, they change into pyrites at a depth of about 60 feet. Professor Luis Carrion points out that to the east of Zacatecas district, up to Uriste, *negros* or black ores occur from the surface down, and one of the veins of the "No pensada" Mine, district of Asientos, State of Aguascatientes, also has *negros* right at surface. In the district of San Pedro de Taviches, State of Oaxaca, where the country is hard andesite of close texture, the writer has seen pyrargyrite (*petlanque* or *rosicler oscuro*) plentifully spotted through a quartz gangue (ore known to the Indians as *mosqueado*) at surface, but in other parts of the district, where the rock is altered or kaolinised, the *colorados* go down 50 feet or even more. Several veins in the Catorce, district, State of San Luis Potosi, also contain *negros* from the surface down. The depth to which the oxidised ores extend depends, too, on the dryness of the latitude in which these ores occur, and also on the configuration of the country—thus, where there are deep valleys of erosion, the ground water may be expected to lie deeper than when these are absent.

Although the productive minerals are roughly divided into two zones, which are surface, secondary, or, according to the phraseology of Professor Posepny, hysteromorphous or latter-formed ores, and deep ores, or ores occuring above and below the water level (ground water respectively, the secondary alteration, due to the oxidising and hydrating action of surface water percolating downwards (the "vadose underground circulation" of Posepny), is in reality a gradual one, and considerable variations occur in both stages in different districts, but, according to M. P. Laur, the positions are never reversed. Sometimes, indeed, native silver and chloride of silver invade the legitimate *negro* or sulphide zone, but this can hardly be regarded as even a partial exception to the above general rule. Señor Francisco de P. Zarate, who about 11 years ago wrote an interesting memoir on the silver veins of the State of Zacatecas, says that when the Veta Grande is split up into three branches of *cuerpos*, separated by a certain thickness of country rock (*cubelletes* or "horses"), the hanging-wall branch (*cuerpo del alto*) is characterised by silver ore occurring in ribands (*cintas*) encased in country rock; in the intermediate branch (*cuerpo de enmedio*) the silver is usually symmetrically arranged between quartz or calcite; while the footwall branch (*cuerpo del bajo*) is composed of ordinary iron pyrites (*caldera*), galena and blende, among which are scattered native silver, chloride of silver (*plata azul*), and such high-grade silver ores as ruby silver, silver glance, &c. (known to Mexican miners as *petlanques*), the whole constituting what is termed a *pinta revuelta*. These minerals, however, are sometimes arranged concentrically, forming nodules (or are, as it is termed, *en boleo*).

Again, St. Clair Duport writes that the mines of San Nicolas and San Clemente, of the same district, abounded in iron pyrites to a depth of 328 feet (richness in silver 0·002—0·004 per cent.); but at a greater depth the pyrites diminished, and native silver was scattered through the ore, thereby raising it to 0·005—0·015 per cent. Finally, at Batopilas, Chihuahua—country rock trachytic and dioritic porphyries—the upper zone consists of chloride (*bodoque*), bromide, and iodide of silver embolite, below which are found sulphides of silver with proustite (*cardenilla*), argentite, &c. Here the country rock is altered and known as *panino negro*. This is succeeded by iron pyrites. Below this latter mineral occur bunches of native silver, in a matrix of calcite, filiform and arborescent, which have made the district famous. Here the rock is unaltered and known as *panino blanco*. It will be observed in the three instances cited that the native silver is associated with iron pyrite, and its reduction is probably in some way connected with the presence of that mineral. Native silver, as will be seen hereafter, also occurs in the *negro* ores of Fresnillo, State of Zacatecas, and there iron pyrites is likewise abundant,

(To be continued.)

WESTERN AUSTRALIAN CRUSHINGS.

SUMMARY TO DATE.

	Tons.	Ozs.
COOLGARDIE FIELD.		
Australia	23	64
Bayley's Reward	6,290	52,000
Bayley's Reward, No. 1 South	1,472	1,649
Coolgardie Mint and Iron King ...	250	960
Cœsus	16	68
Great Boulder	453	4,068
Ivanhoe	185	567
Lake View and Boulder East	1,411	4,923
Londonderry	—	8,000
Mount Bergess	2,473	3,218
New Victoria	228	387
MURCHISON FIELD.		
Austin	190	130
Consolidated Murchison	10,428	7,957
Emperor	266	1,825
Fortune of War	86	116
Golconda	—	2,076
Kinsella	100	125
Mainland Consols	—	1,250
Murchison United	255	807
Nannine	337	1,015
New Chum	—	9,118
Star of the East	—	10,608
Trenton	1,397	2,504
Victory United	849	1,856
YALGOO FIELD.		
Emerald Reward	—	5,440
YILGARN FIELD.		
Central	10,383	4,986
PILBARRA FIELD.		
Consolidated Gold Mines of Western Australia	1,806	2,407
Total (26 mines)	—	134,550

The above is a summary of an exhaustive table published by the *West Australian Review*.

BELGIAN BLAST FURNACES.—The number of furnaces in blast in Belgium at the commencement of May, 1895, was 30, while there were 14 furnaces out of blast at the same date. The total of 30, representing the number of furnaces in blast at the commencement of May, was made up as follows:—Charleroi group, 12; Liège group, 12; Luxembourg, 6. The output of pig in Belgium in April was 81,375 tons, as compared with 75,000 tons in April, 1894. The aggregate output in the first four months of this year was 304,175 tons, as compared with 295,500 tons in the corresponding period of 1894.

THE COPPER AND TIN DEPOSITS OF CHOTA-NAGPORE, BENGAL, INDIA*.

By ROBERT OATES.

Situation.

THIS immense copper range is by far the largest known deposit in India, commencing at Lopso in the highlands of Chotà-Nagpore. It at first takes a north-easterly course, then gradually trends in a south-easterly direction to Bairagoora in the east, having a total known length of some 80 miles. It passes through the following rivers in its course:—Shanjai, Kherkisi, and Gurha, besides innumerable nullahs (streams), all of which flow in a north-easterly direction into the Soobunrekha river, which again runs in a south-easterly direction into the Bay of Bengal in the Balasore district.

Access.

This district has since the early part of 1891 been opened out by the Bengal-Nagpore Railway, which starts from Asansol on the East Indian Railway, and taking a south-westerly direction meets the Great Indian Peninsular Railway at Nagpore, and thus forms a second route from Calcutta to Bombay. The nearest station to the copper range is Sini, some 225 miles from Calcutta. Two miles or so, or about 227 miles, the line passes through the copper belt, 64 miles being to the east of the line and 16 miles to the west. The nearest old workings exist at Dugni, east of the railway.

Geology.

The copper deposits occur disseminated throughout a belt of schistose formation belonging to the sub-metamorphic period, and consist of bedded schists and quartzites, which again rest on a wide extent of gneiss, principally found in the centre of the copper range. The bedded quartzites which lie below the schists also have lenticular masses of copper permeated schists interspersed throughout them. The whole of this belt has been upheaved from the south at an average angle of 40°. The quartzites have formed broken hills, sometimes 1500 feet in height, where the force of upheaval has been strongest. The principal hills proceeding eastward are Dhobo, Rangamatia, Kappergadi, and Sideshur. All these hills are highly precipitous on the southern sides; huge slabs of quartzite lie at the bottom, testifying to the disintegrating action resulting from severe climatic conditions. These hills, consequently, are more conveniently approached from their north or sloping side.

The small hills which form the spurs of these larger hills are composed of schists, and invariably form the copper belt, the schists sometimes being replaced by quartzites and *vice versa*, so that the outcrops take rather an erratic course. It will naturally follow that where these elevations occur outcrops have been formed, and, according to their exposed condition, the copper pyrites forming the whole mass has yielded all its sulphur, leaving strings, incrustations, and segregated masses of blue and green malachites. Where the conditions of atmospheric influence have not been so favourable, only a partial decomposition has taken place with oxides as the result, and at a lower depth the original copper pyrites would appear, when atmospheric agency had had no influence. Trap intrusions are of frequent occurrence, and appear to have originated after the upheaval of the sub-metamorphic rocks. Wherever they show themselves, schists have become almost unrecognisable. The dip or strike have not suffered much from these outbursts except locally, returning to their normal course after passing beyond their influence.

One of the results of trap intrusion is to convert the talcose-schists into a coarse steatite, or potstone, adaptable to the manufacture of ware (plates and basins), which is still made for the Calcutta market. Quartz pebbles strew the ground in all directions, being the result of weathering. Quartz being plentifully distributed throughout the schists in strings, and lenticular and segregated masses (especially the latter) in the neighbourhood of trap eruptions. The quartz is never found in any continuous form (such as reefs). Where the amount of upheaval is small the belt is covered by alluvium, and undoubtedly exists regular and well-defined under this covering.

The other metals found along this belt are iron and gold. The former in the shape of hematite and magnetite; the hematite is associated with the schists, and found as filling in the vein-stuff; the magnetite is found in thin beds in quartzite. The hematite is used extensively by the native iron-smelters, and the iron is of excellent quality, being almost equal to the very best Swedish. Gold is found in the rivers and water-courses after the rainy season in the shape of wiry and flattened pieces. It is, no doubt, distributed in sparse quantity through the schistose zone. After the weathering of the soft rocks during the hot season tons of debris are every year carried down the rivers during the rainy season, and subjected to the churning action of water, the lighter gangue being carried away, and the heavier gold lodged in the nooks and crannies of obstructing rocks in the river-beds.

The precious metal is sought after by a class of low-caste natives called Jhoras. This occupation is considered a degrading one by the better-class native. The Jhoras scatter themselves throughout the country, each party having their favourite localities. The yield sometimes is only 1 ounce per person, a production of 4 ounces being considered a red-letter day. The gold, which is mostly in the form of dust, is melted into a baston, and sold to the Sonar, or goldsmith, of which nearly every village has its representative.

The copper ore occurs disseminated, and in beds or segregated masses, throughout the whole belt, along the lines of least resistance, and follow the dip and strike of the country, so that the ore partakes of the nature of a stratified mineral deposit. At the time of the formation of the copper belt, water charged with copper in solution would become precipitated in the form of strings and bunches along the planes of foliation. Where the solution has been concentrated the deposits would be larger. After the building-up of the beds and tranquil deposition of mineral matter, the whole belt has been upheaved, when a further concentration would take place. The great number of slicken-slides points to the movement of the beds at different periods. Lastly, the intrusions of trap matter would still further enrich the ore beds in their vicinity. Practical search has shown that the ore beds improve, and become more defined as depth is attained, clearly indicating that the copper deposit in this district is likely to be found a permanent one.

Ancient Mines.†

Wherever the force of upheaval has formed outcrops, innumerable old workings are found, the supposed work of a once industrious people. According to tradition, Ruam, probably a King of Orissa, invaded this district some 2000 years ago, and took up his abode on one of the spurs of the Sideshar hill, called Ruamgurgh, and fortified it. Extensive old workings, heaps of slags, and remains of walls at the present day testify to the story. This King is reported to be a foreigner by the people of the district (evidently Santals), and to have been conversant with two languages, probably Bengali and Oorya. Notwithstanding the great number of old workings visible at the present day, there must be a good many filled up with débris and hidden by jungle growth. In some places, particularly Landu and Rakka, the old workings are so plentiful that the resemblance to an immense rabbit-warren is very noticeable. Where the copper bed has continued parallel with the side of the hill, and within easy distance of the surface, small circular shafts have been sunk some 20 feet apart, all down the hill to the water-level of the country, and communication made from one to another. No obstacle appears to have deterred these people from working the ore, because bunches of ore have been worked in the quartzites on the top of Rangamatia on its precipitous side.

In every instance the softer portions have been worked, leaving in some case pillars of less rich material as supports to the roof, where the deposit has been extensive, like that at Chundra hill. Close by the old workings are heaps of slag, showing that the ore was converted into metal on the spot. The bulk of the ore has occurred as laminations in the schists and quartzites, so that a rough concentration would increase the amount of slag, and possibly much of the slag results from iron smelting. There seems no indications of a sulphide ore having been worked; either the existence of large quantities of easily-smelted ore, or ignorance of the method necessary to deal with sulphide ores would lead to work being abandoned on approaching copper pyrites. The large amount of work done, and over such a considerable area, indicates that the extraction of ore must have extended over a number of years.

Singhbhoom Copper Company.

Attention was called to this district in 1857, rather a bold undertaking in those days, when railways were in their infancy, and the climate by no means a healthy one, because there must have been extensive forests and thick jungle in all directions. The route taken would be by road to Midnapore, after which the roads would be a serious obstacle, and probably mere cart-tracks. The distance from Midnapore to the headquarters of the company at Landu would be 86 miles. Operations appear to have been conducted over 16 miles in length of country, viz.:—Jamjhora, Landu, Hitku, Matku and Rajdoha. Many shafts, adits, and inclines scattered throughout this area point to the vigorous search for workable deposits, but these explorations were generally confined to the outcrops, so that much of the ore would have been extracted by the ancients. The main working was at Landu on the middle bed.

The natural result of so extensive an exploration was the expenditure of a large sum of money, but the culminating point was reached when a smelting works was insisted upon when the mines were not in a sufficient state of development. Rajdoha was selected as the site for a smelting works, evidently on account of its water supply. The River Ghunah runs by the works, and a building was erected 100 feet long by 20 feet wide, containing the furnaces on the German hearth principle, and alongside this building another was placed for the housing of the boiler and engine. The boiler is about 16 feet long, with flattened ends, and made of plates ¼ inch in thickness, working possibly at a pressure of about 10 lbs. to the square inch. The existence of a ring, roughly rivetted round the centre of the boiler, points to the rivetting having been done at the mine, and that the boiler had been transported to the mine in two pieces. The engine, which was seriously damaged when the writer saw it, is an old-fashioned beam engine, all the parts being of cast-iron (chilled), fitted with condenser and fly-wheel, and a pump to feed the boiler. This engine supplied the blast to the furnaces. These two costly articles would be a heavy drain on the resources of the company, together with the yearly payment of a royalty of Rs. 9200 (say, £920 in those days) to the Rajahs of Seraikela and Dhalbhoom, for the right to mine, consequently in 1859 all work was abandoned.

Hindostan Copper Company.

In 1862 work was commenced, and Rajdoha appears to have been the headquarters, from the position of the buildings for the officials of the company. Some copper was smelted and sent to Calcutta, *via* Purulia, to Ranujunge on the East Indian Railway, a distance of 130 miles, so that this route would take the ore *via* Midnapore of the first company. The smelted ore was all that could be desired. The only evidence of mining is the existence of an underlie shaft at Rajdoha, sunk to a depth of 100 feet, with levels at the depth of 60 feet, carried in 9 and 10 feet high respectively. The end shows impregnations and laminations of carbonates and oxides, but nothing of a solid nature. To the north of this underlie shaft a vertical shaft was carried, sunk to a depth of 70 feet, with the evident intention of meeting with the underlie shaft at a lower level. This vertical shaft has just struck pyritic ore when work was abandoned. Although the annual rent was reduced to £450 it was not wholly paid, and on the suspension of this company, in 1864, the brass-work of the engine and the doors and windows of the buildings were removed by the landlord.

Rajdoha Mining Company.

Early in 1891, on the opening of the Bengal and Nagpore Railway, attention was once more directed to this district, owing to its proximity to the line of railway. The most important portion of this copper range was leased direct from the Government (the estate of Dhalbhoom being an encumbered one). The area of the concession was 120 square miles, commencing at a point 16 miles from Kandra station on the Bengal-Nagpore Railway, and where the estates of Seraikela and Dalbhoom meet, and extending in a south-easterly direction for a distance of 40 miles, with an average width of 3 miles. The concession included the sole right of prospecting over this tract of country for a period of five years, during which time selected areas might be taken up for mining on leases, for gold for a term of 30 years and for other minerals for 45 years, with a yearly rental of Rs. 3 8 0 per acre for land taken for gold, and Rs. 1 8 0 (the present rupee is worth 1s. 1½d. but is constantly fluctuating) per acre for land taken for other minerals. The concessionaires have the option of abandoning any land taken up under lease at any time on payment of one year's rent, the minimum rent being Rs. 500. The royalty payable is 5 per cent. on the net profits, and on transfer of land to others a commission of 2½ per cent. The Subanrekha river, which flows almost the full length of the concession, is included in the area taken up.

Out of this district of 120 square miles the Rajdoha Mining Company selected an area, including the buildings and smelting-house at Rajdoha, which became the head quarters of a company for a second time. The area of this property is 24 square miles, situated about 8 miles from Rajdoha in a south-easterly direction. The nearest point to the new railway is 24 miles, and the farthest point 32 miles.

(To be continued.)

* From a Paper contributed to the Federated Institute of Mining Engineers.
† Interesting information will be found in the "Records of the Geological Survey of India," vol. 3.

MESSRS. CLAYTON AND SHUTTLEWORTH inform us that their London office and show rooms are now at 95, Queen Victoria-street, E.C., where they will exhibit motors for thrashing, electric lighting, sawing, pumping, and general purposes, comprising portable and fixed steam engines, patent oil and gas engines (in motion), and other articles.

C. PASS & SON (Limited), BRISTOL,
ARE BUYERS OF
LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS, ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c. and DROSS or ORES containing
TIN, COPPER, LEAD, AND ANTIMONY.

HENRY WIGGIN & CO. (Limited),
NICKEL AND COBALT REFINERS,
MAKERS OF BEST RED LEAD FOR FLINT GLASS MANUFACTURERS,
BIRMINGHAM.

LAMBERT'S WHARFAGE CO.,
PRINCE OF WALES DOCK, SWANSEA.
Ores, Matte, Regulus, and Bars received and prepared for market. Copper, Lead, Tin, Spelter, and Pig Iron Received, Weighed, and Sampled, and Warrants issued against same.
N.B.—Warrants are on Accepted List of London Metal Exchange. Regular lines of steamers from America, Europe, &c.
Consign goods to Lambert's Cranes, Prince of Wales Dock, Swansea.

ROYAL CORNWALL POLYTECHNIC SOCIETY.
THE 63RD ANNUAL EXHIBITION WILL BE HELD AT THE
POLYTECHNIC HALL, FALMOUTH,
ON TUESDAY, SEPTEMBER 24, 1895, AND FOLLOWING DAYS.
MEDALS and PRIZES are offered in Mechanics, Mineralogy and Chemistry, Fine Arts, Photography, Natural History, and other Departments.
BOARD OF TRADE CERTIFICATE GRANTED PROTECTING UNPATENTED INVENTIONS.
For Prize Lists, Entry Forms, and all information apply to the Secretary.
EDWARD KITTO, F.R.MET.S.,
The Observatory, Falmouth.

PACIFIC MINING AGENCY AND TRUST COMPANY.
A Corporation organised under the Laws of the State of California.
CAPITAL STOCK, £50,000.
BOARD.
IRWIN C. STUMP (Chairman) Manager of the Estate of the late U.S. Senator Hearst.
IRVING M. SCOTT, Manager Union Iron Works.
JACOB H. NEFF, President California Miners' Association,
P. N. LILIENTHAL, Manager Anglo-California Bank (Limited).
W. F. GOAD, Vice-President, Wells, Fargo, and Co.
D. M. BURNS, Capitalist.
R. C. CHAMBERS, Manager Ontario Mine, Utah.
WILLIAM C. RALSTON, Secretary (Secretary California Miners Association).
BANKERS—The ANGLO-CALIFORNIAN BANK (Limited).
HEAD OFFICE — MILLS BUILDING, SAN FRANCISCO, CAL.

THIS COMPANY sells Mines, Mining Claims, Ditch Properties, and Water Rights ON COMMISSION, and will act as Agent and Broker for the Sale and Purchase of such Properties.
It is intended to conduct the Purchase and Sale of Mining Claims, Ditch Properties, and Water Rights on the same basis as a real estate transaction.
The Company is prohibited by its Articles of Incorporation from buying or selling on its own behalf, or except upon commission, or as agent or factor for others.
The buyer pays no fees whatever, and there is no incentive to advance the price beyond the original figures at which the price and commission have been agreed upon with the seller.
It is not intended only to negotiate the sale of an entire property but interests in such may be sold or money obtained for development work.
This Company especially solicits the business of making reports or examinations for non-resident mine owners on any of their mines in the United States, and obtaining special information as to their condition and so forth (said reports being confidential).
Those who conduct the business of the Company have had long experience in mining operations, and it is their intention to place the Company in a position to inspire the confidence of all who seek its assistance in its integrity and fair dealing.
We respectfully refer to any Bank in the City of San Francisco and to the Anglo-Californian Bank (Limited), London, as to the standing of the Board of Directors of this Company.
Descriptions of properties for sale with maps, reports and all necessary information, are left on file in the office of the Company. Abstracts of such reports with prices of mines will be furnished pon application.
California has produced £267,000,000 in gold, and is still producing £2,680,000 a year. There are thousands of claims requiring capital for development. In other Pacific Coast States and Territories there are abundant opportunities for investment in mines of gold, silver, copper, lead, coal, and so forth. Information concerning these will be furnished by this Company on application.
This Company will also furnish competent engineers, superintendents, foremen, miners, millmen, assayers and others connected with the mining industry on application, furnishing their references and so forth.—Cable Address, "CHAPIN," San Francisco.

PRINTING.
We are prepared to Compose, Stereotype, and Print Papers Pamphlets, &c., in the most expeditious manner, and give Special Attention to Printing required on the formation of New Companies, including:
PROSPECTUSES, DIVIDEND WARRANTS,
ANNUAL REPORTS, BALANCE-SHEETS,
DEBENTURE AND SHARE LISTS, &c., &c.
Every kind of Commercial Printing Executed with Dispatch.
ESTIMATES FREE.
"THE MINING JOURNAL,"
18, FINCH LANE, LONDON, E.C.

The Mining Journal,
RAILWAY AND COMMERCIAL GAZETTE:
An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.
ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, published every SATURDAY MORNING, price SIXPENCE, is recognised throughout the World as being the oldest, most influential, and most widely circulated Journal devoted to the interests which it represents. It circulates
ALL OVER THE WORLD,
Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical, Railway and Mechanical Engineers, Railway Administrators, Manufacturers, &c., &c.
THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE has correspondents and sources of information in almost every quarter of the globe. Its policy is absolutely independent; its circulation is cosmopolitan; and its literary scope embraces the entire field indicated by its title.
THE MINING JOURNAL is neither controlled, nor is any interest in it held or exercised, by any mine owner, speculator, or syndicate; and it is in no way connected with any share-dealing agency.

TO CORRESPONDENTS.—Letters on Editorial Matters, or containing literary contributions should be addressed to "THE EDITOR." All matter intended for insertion must be written on *one side of the paper only*. The return of rejected manuscripts cannot be guaranteed. The Editor invites correspondence and items of news or information from readers in all parts of the World.
TO SUBSCRIBERS.—The Annual Subscription to THE MINING JOURNAL, including postage to any part of the United Kingdom, is £1 4s. Abroad, £1 8s. payable half-yearly in advance. It can be purchased at all Railway Bookstalls and Newsagents throughout the United Kingdom for 6d.
TO ADVERTISERS.—The following is an abbreviated Scale of Charges for Advertising:—Companies' Prospectuses, £12 12s. per column, or £20 per page; Companies' or Legal Announcements, 9d. per line, with a Minimum charge of 7s. 6d; Sales by Auction, Publications, For Sale, Wanted, &c., &c., 8d. per line with a Minimum charge of 4s.
Displayed (Trade) Advertisements of 2 inches in depth (or more), Single Column measure, will be inserted at the following rates:—For 52 insertions 2s. 6d., per insertion for each inch in depth; for 26 insertions 3s. per insertion for each inch in depth; for 13 insertions 3s. 6d. per insertion for each inch in depth. Terms for special positions and contracts may be had on application.
*** ADVERTISEMENTS (which should in all cases be sent direct to THE BUSINESS MANAGER) can now be received for the forthcoming issue of THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C., until 9 p.m.

Editorial and Advertisement Offices:
18, FINCH LANE, LONDON, E.C.
Telegraphic and Cablegraphic Address: "TUTWORK, LONDON."
Codes used: "A.B.C.," Moreing's, and "Universal."

CONTENTS

Of this Number of "The Mining Journal, Railway and Commercial Gazette," June 29, 1895.

NEW PATENTS ... 757
CONTRACTS OPEN ... 757
JOINT STOCK COMPANIES—New Registrations ... 757
PARIS LETTER ... 758
THE EFFECT OF ARSENIC ON STEEL ... 758
THE RAND CONGLOMERATE ... 759
MINING NOTES FROM JOHANNESBURG ... 759
ROYAL AGRICULTURAL SHOW AT DARLINGTON ... 760
MEETINGS OF MINING COMPANIES—
Rand Southern Gold, Eaglehawk ... 761
New Gold Hill, Glenrock, London and South African, Kimberley Diamond, Crœsus South United, Balaghat ... 762
Gwelo Exploration and Development Company (Limited) ... 763
Hampton Plains, Golden Crown, De Lamar ... 764
NEW ISSUE ... 765
LATEST FROM THE MINES: Cablegrams and Telegrams ... 765
COMPANY FINANCE ... 766
ON DEEP MINING IN MEXICO ... 766
WESTERN AUSTRALIAN CRUSHINGS ... 767
COPPER & TIN DEPOSITS of CHOTA NAGPORE, BENGAL, INDIA ... 767
LEADING ARTICLES—
The City and Suburban, Prospects or Diamond Mining ... 768
Welsh and Scottish Mining ... 769
NOTES AND COMMENTS ... 769
THE MINING MARKET ... 770
THE METAL MARKETS—
The London Metal Market ... 771
CORRESPONDENCE ... 771
"THE MINING JOURNAL" SHARE LIST ... 772-773
SIDE LIGHTS ON THE LAW ... 774
MINING IN CORNWALL AND DEVON ... 774
REPORTS FROM THE MINES ... 774
PROVINCIAL SHARE MARKETS ... 778
BRITISH GUIANA'S GOLD INDUSTRY ... 779
ASHBURTON DISTRICT, W.A. ... 780
ADVERTISEMENTS—(*See Index to Trade Advertisements, p. 754*).

LONDON: JUNE 29, 1895.

THE CITY AND SUBURBAN.

IT may safely be said that no mine in South Africa is regarded at the present moment with a greater interest than the City and Suburban, the £1 shares of which stand at a considerable premium. It is one of the largest properties on the Rand, notwithstanding that the nominal capital of the company is quite insignificant compared with others of a lesser area. The property lies about a mile south-east of the central portion of Johannesburg. On the west it is bounded by the Jubilee Gold Mining Company, Village Main Reef, and by claims belonging to the Rand Mines and to the Gold Fields of South Africa. On the east it is bounded by the Meyer and Charlton, by Rand Mines claims, and by Prospect Township. The mineralised portion of the property is very extensive, and is 160 claims in extent. Bearing in mind the conspicuous position which the City and Suburban holds amongst Kaffir properties, any information giving some reliable data as to its present position and prospects is very acceptable, and accordingly we welcome an elaborate and detailed article which appears in the *South African Mining Journal* of June 1, the last copy received by mail. The history of the company is well known. It was formed in the year 1887, for the purpose of working 24 claims, being the mynpacht of the farm Doornfontein, and 79 claims on the farm Turffontein. In November, 1891, the company purchased for £14,000 the freehold of the whole of their property, embracing a total of 454 acres. In October of the same year the mynpacht was renewed for 20 years. It will be seen, therefore, that the company does not depend for its revenue solely on the gold production, for in addition a considerable income is derived from the letting of land and other sources. In October of last year, for instance, £65,840 was derived from a sale of building lands in Johannesburg. Up to April, 1891, 20 stamps were crushing; a further ten were then added, and ten more in July, and ten in August, 1891—making 50. These were at work until July, 1894, when a new 80 stamps battery was started, making a total of 130 stamps. Eighty additional stamps are now being added. A cyanide plant of 4500 tons was started in April, 1892, treating by the close of the year 24,000 tons from the new battery. The tree-planting was in the latter year extended over another hundred acres on the estate. The nominal capital of the company is £85,000, but a scheme is at present under consideration for increasing the capital to £1,360,000 by the issue of 340,000 £4 shares, four of which will be allotted for every one of the present holding. At a meeting held recently to consider the scheme a quorum was not present, and it, therefore, remains undecided. Considering the great favour with which Kaffir mines have been regarded for some considerable time past, it is not surprising that the price of City and Suburbans should go up along with the rest. The shares, however, have been bought by people ignorant of the real magnitude of the property, although they have had quite sufficient information to assure them of its great value, and of the long life that seems in store for it.

The reefs on the property comprise the South reef, Main reef leader, and Main reef. The dip of these reefs varies from 45° and under, at the outcrop, to about 40° and even 35° in depth, the tendency being to flatten. But of these the South reef and Main reef leader alone are worked, and during the past year yielded in the following proportions:—South reef, 62,189 tons; Main reef leader, 53,816. The Main reef has not hitherto been developed. In the Meyer and Charlton property, on its east continuation, it is found to run from 4 to 12 feet wide, being widest in depth, and with an assay value of from 8 to 13 dwts. On the west, in the Jubilee, the reef shows an average of 15 feet in width, running up to 25 feet, and with an assay value of from 7 to 8 dwts. per ton. The writer of the article estimates the life of the mine at 17½ years. The working area of the mine, that is, the portion south of the outcrop, amounts to 9,624,400 feet; reckoning 60,000 feet to the claim, the area is, therefore, 160·4 claims. The dip of the reef ranges from 45° to 35°, and thus, with the stoping width of nearly 6 feet, and reckoning 13 cubic feet of rock to the ton, the theoretical tonnage per claim will be 39,000. Making the deductions for faults, pillars, &c., necessary for a practical estimate, the tonnage can be taken as 36,000 tons. The total tonnage (on the estimate of the South reef and Main reef only) will, therefore, be 5,775,000 tons; or, deducting the total crushed to the end of December last, 5,500,000 tons. When the 210 stamps are all at work the yearly crushing will be about 320,000 tons, thus giving 17½ years as the life of the mine. This estimate is based upon the extent of the two smaller reefs—South and Main reef leader. The main body of ore, however, in the mine is the Main reef. Owing to the large supplies of ores available, this reef has not yet been largely milled, and its value is, therefore, not fully known. In the adjoining mines on either side, the Jubilee and the Meyer and Charlton, it has been thoroughly tested. They indicate that the reef runs about an average of 12 feet wide (on the Jubilee the width runs from 15 to 25 feet) with a probable fire assay value of 7 or 8 dwts. The decreasing cost per ton will allow such a reef to be milled with profit; if so, the total tonnage and life of the mine should be increased in a probable ratio of (taking, as far as one can, everything into consideration) 6·3, and the tonnage is raised to 12 million tons. A lowering of the general value of the ore milled should, therefore, in this mine be always a matter of satisfaction to those concerned in its prosperity.

However, leaving this reef and its future aside, the quantity of ore in the mine on the present milling rock appears to be some 5,500,000 tons. During the first quarter of this year, with the new battery and cyanide works, the profits per ton are as follows:—January, 14s. 10d.; February, 15s. 1d.; March, 17s. 11d. When the remaining 80 stamps are at full work, the profit should be further raised to probably 20s. per ton. On which estimate the profits still to be expected from the mine amount in the aggregate to £5,500,000, spread over 17½ years. The fact that the working of the Main reef leader practically opens the Main reef itself should not be lost sight of, as the expenses attending the mining of this reef will be consequently very low. With this in mind, shareholders may with every confidence calculate the Main reef as doubling the assets.

PROSPECTS OF DIAMOND MINING.

THERE seems to be good reasons for believing that the even tenor of the way which has been pursued by the diamond mining industry since the great amalgamation epoch is not likely to continue indefinitely. Influences are at work, which sooner or later may very easily bring about a reshuffling of the cards. So far as the position of the De Beers Company and of the diamond market are concerned, circumstances could hardly have been more favourable. It is true that the output was greatly reduced, but then that is a necessary condition, in dull times, to the maintenance of the price of diamonds. Now that business is beginning to revive in the United States, prospects are hopeful for a more active demand than ever for the precious stones. The company has now the advantage in disposing of its products of a Continental competition against the Anglo-African Syndicate, which has monopolised the market, and the result of this was currently reported to be a rise of 10 per cent. in the prices obtained at the last great sale, as compared with those of the previous one. The agitation for the abolition of restriction of

the "compound" system, and for the imposition of an export tax on diamonds, have not the slightest chance of succeeding. The influences which threaten a change in the aspect of the industry are outside the position of De Beers. In spite of that company's efforts at monopoly there is a very strong tendency for a rival diamond production to establish itself in South Africa Nor are the enterprises concerned of a character to be dealt with as some of those which have been absorbed by the great company in the past. At Kimberley itself high hopes are held of the emergence of the outside diamond companies from the troubles and disasters which have marked their early days. The prospects of the Bultfontein are held to be very encouraging, and some substantial proof of confidence has been given by the recent subscription of capital to take up fresh ground. Residents in Kimberley are only too eager to accept any tidings which promise a struggle against the present amalgamation and "compound" system, but the reports coming to hand are of a solid and respectable nature. At the Gordon Mine hopes are held out at length of a remunerative future after the long period of waiting and expenditure involved in the unwatering of the mine. The manager will soon be in England, and his information upon the actual position will be awaited with interest. While De Beers may be perfectly able to pursue its old buying-up policy with these neighbouring mines, it is somewhat difficult to see that end to the competition which is being established in the Orange Free State. Of course, the payableness of these fields is as yet unproven, but as they are being developed with the capital of the keenest of Johannesburg financiers, one is justified, *primâ facie*, in regarding the matter, as the French say, seriously. Supposing Mr. J. B. ROBINSON succeeds in his accredited object of possessing a diamond mine as valuable as the great gold mine called by his name, he will not be an easy man even for the De Beers Company to buy up. And that he is in earnest in this venture is shown by the accusations of sharp practice that have been brought against him by the other Johannesburg company which is carrying on operations in the same field. The manager of this latter company declares that there is no question of the richness of the ground, and that the only thing needed is to erect an adequate washing plant. These circumstances point to the belief that in the near future the De Beers Company may have formidable competition to meet. However, the company has practically unlimited resources, and, what is more, it has so carefully nursed the diamond industry that at the present time a considerable influx of stones on to the market could probably be quietly absorbed. It is, however, a matter of some interest to European shareholders that South African capital is being so largely put into rival enterprises, and it is one which in time to come may have a strong bearing upon the fortunes of the great Kimberley monopoly.

WELSH AND SCOTTISH MINING.

WE have reason to congratulate ourselves upon the fact that the series of articles published in *The Mining Journal* in March and April last upon the subject of gold mining in Wales, written by our Special Commissioner have been eminently successful in calling public attention to the importance of this industry in the Principality. We hear that numerous concessions are being taken up, and already several companies have been or are in process of being formed. The returns from the mines are most encouraging. At the Clogau Mine from January, 1891, to May, 1895, the amount of rock put through the mill has been over 2800 tons, and the yield of standard gold over 4400 ounces, of a value of £17,240, which gives over 1½ ounce to the ton. At the Gwynfynydd Mine, worked by the British Gold Fields, the amount crushed from August, 1894, to April, 1895, has been 10,747 tons, yielding 6606½ ounces of gold, or an average of 12½ dwts. to the ton. Such records as these from actual crushings rival the best of those in the Transvaal and West Australia, and we have no doubt but that if the other mines in Wales are worked on the same strictly commercial principles, the results will be equally as satisfactory. Our energetic contemporary the *Pall Mall Gazette* is following our initiative, and has sent a commissioner to report upon the gold mining industry of Wales, while the *Morning Post* of Monday last also devoted a leader to the subject. We hear also that the *Illustrated London News* has had a representative on the spot. It is significant that on Friday night of last week an important statement was delivered by the Chancellor of the Exchequer with regard to the dead rents and royalties, as well as the production of the Welsh gold mines. He also added that he was very willing to assist in securing the engagement of some experienced man to investigate the whole of this subject of gold production in the Principality, "which," he added, "is one of considerable importance." We ourselves shall continue to keep a watchful eye upon the progress made, and to encourage all attempts at legitimate mining in the Principality.

The mining industry, which for a long time has been stagnant in Scotland as far as metalliferous mines are concerned, has made an important advance by the discovery of large deposits of plumbago near the town of Newton Stewart. We learn on good authority that two beds have been opened up, each about 20 feet wide; that the quality is good, and that a local company has been formed for the purpose of energetically opening up the mines and putting the product upon the market. The deposits, which are interbedded in shales, occur near the line of contact between the shales—or, as our Cornish friends call them, "killas"—and the eruptive granite; while the same company have also discovered a strong lode of arsenical pyrites running exactly along this line of contact. The discovery of plumbago is of especial importance, as all of the home mines are now exhausted, the supply wholly coming from abroad—mostly Ceylon. If the discovery develops in a manner approaching what the present prospects indicate, the company will have a prosperous time in store for itself.

NOTES AND COMMENTS.

THE shareholders of the Ottos Kopje Diamond Mines (Limited have just been favoured with a copy of the report of Mr William Evans one of the directors, who has recently paid a visit to the property. The matter to which he specially directed his attention was the examination of the company's new plant, particularly with the object of ascertaining the cause of the protracted delay. At the meeting in May last it will be remembered that this was the chief topic of discussion, but in commenting on it we expressed it as our opinion that there was really no cause for anxiety. This has been entirely confirmed by the statements contained in Mr. Evans' report. When he arrived at the mine he found that the foundations were absolutely sound and stable, that the machinery was erected, and the numerous difficulties of the past six months had been reduced to one—viz., that relating to the tailings gear. The most important causes of the delay were:—(a) The modifications made in the design (b) Defects or faults in erection. The faults of construction, he says, are unimportant, and he reports that the work done by the Chatteris Company is satisfactory. When he left the mine he was satisfied, after a consultation with Mr. Mercer, that as soon as the tailings gear is supplied, the machinery will be capable of washing 100 loads per hour. Thus is our opinion borne out in every particular, He speaks in most encouraging terms of the value of the property. Tests of the diamondiferous ground were made in his presence, and every washing gave diamonds. At a depth of about 20 feet, the area, which, according to Mr. Lisle's report, had been found to be profitably productive, gave an average of slightly over 7½ carats to the hundred loads. At a shallower depth the return was an average of 4¾ carats per 100 loads; at the surface, where the yellow ground was largely mixed with sand, the return was 1½ carat His conclusion is that the mine, after further development, will fully justify the sanguine expectations that have been formed as to its value.

MR. RAWLINGS expresses what, in our view, is a very just opinion as to the high importance of a statutory meeting. The general disposition to treat the first meeting of the shareholders of a company as if it were a mere empty formality, appears to us to err grievously. It is hardly conceivable that the Legislature should have committed such a wanton waste of valuable time as to decree a long succession of purposeless meetings, with no possible aim and no resultant advantage. The fact is that, prior to its first meeting, a company, as a definite collection of investors knit together by a common object, can hardly be said to exist. There may exist a property, a board of direction, a manager, and even a plant—but there can hardly be said to exist what is generally comprehended in the term company. But further than this the shareholders themselves have a very direct interest in purging the statutory proceedings of the merest scintilla of formality. There is generally a good deal of information gathered together even at this early stage of the proceedings, such as may easily form the basis of a long discussion, and turn the balance between the extremes of favourable and unfavourable opinion. The fact, moreover, remains that in the vast majority of instances, statutory meetings are by no means a cut-and-dried ceremonial, formal in the inception, and dull and valueless in the outcome. On the contrary, the speeches from the chair are generally of an interesting and suggestive character. So that we cordially agree with Mr. Rawlings in the estimate he formed of the average statutory meeting.

IT was at the meeting of the Rand Southern Gold Mines (Limited) that Mr. Rawlings delivered himself of this opinion, and afterwards proceeded to justify it by a complete and vivid statement as to the present position of the enterprise. It must be fairly apparent that when so much has been done, as in the present case, to put the new company in a fair way of full working, the speech from the chair carries a considerable quantum of facts and details that the shareholders ought not to go for any length of time without knowing. For instance, Mr. Rawlings was able to state that the transfer was effected, the managing director appointed, and the working of the mine commenced. Thus far they have got into actual operation, and it is fully within their knowledge that the Black reef runs through their property. The last fact carries considerable significance, because there is more than one property similarly situated which has been able to make a fair profit and pay a considerable percentage to its shareholders. The ore is admittedly of no very high grade, but by the aid of the cyanide process it can, in all likelihood, be made to cover expenses, and leave a substantial margin of profit in the one case as in the other. These facts and inferences, embodied in a preliminary declaration as to the position and prospects of a company, are calculated to infuse interest and life into the proceedings, and in the case under consideration they certainly did so.

THE year for which an account has just been rendered to the shareholders in the London and South African Exploration Company, though it was not one of unexampled prosperity, has had satisfactory results. No comparison can properly be instituted between it and another year, seeing that exceptional disadvantages have had to be encountered in the way of trade depression and bad debts. These, however, are in a fair way of being tided over, and to all appearances the current year will be of even a better colour than the preceding one. A greater commercial activity is spreading in the district where the company's interests are located, and the difficulty of rent collecting will almost certainly be a great deal lighter. The past of the company has been a highly successful one, and affords the strongest presumption for a similarly happy career in the future. The company, indeed, is an apt illustration of the opportunities for profit that occur in a rapidly-developing country. The quick appreciation of the company's property, and the continuously progressive rent-roll, are features which not infrequently accompany an undertaking of this sort, situated in a country favourably conditioned, and managed with intelligence and foresight. All things considered, the shareholders in the South African Exploration Company may rest fairly hopeful with regard to the future.

FROM the telegram which appears in another part of our issue of to-day, it will be seen that the estimates formed by the public of the value of the Hauraki Mine, and the appreciation which consequently was given to its shares, were based upon no exaggerated view of the capabilities of the property. That a dividend of 2s. 6d. should be declared in a few months upon a 6d. share is by itself a sufficiently extraordinary phenomenon in the financial world, but when the yield which has enabled so satisfactory a distribution to be made is considered, there is yet more matter for wonder. The cablegram announces a yield of 3374 ounces from 60 tons, or an average of something over 50 ounces to the ton. Figures transcending these in magnitude are occasionally quoted at meetings, but in the generality of case these are "mere assays," while this is on the broad result of a month's working. We congratulate the shareholders in the company upon the outlook which is theirs, the directors and staff upon their management, and lastly, the colonists of New Zealand upon their connection with a country whose gold-bearing capacity is, at least so far as certain districts are concerned, placed beyond question.

THE report of the directors of the New Guston Company is about the most encouraging which they have issued for some time. The balance of revenue account for the year ended December 31, 1894, including a balance of £1794 brought forward from 1893, amounted to £8589; £2000 has been written o additions to mines, buildings, plant, and machinery, £6000 has been carried to reserve, and £589 carried forward. The ore raised and sold to various smelters amounted to 13,334 tons, which realised £34,921, or an average of £2 12s. 4d., against an average of £3 15s. 6d. per ton of 2000 lbs. realised in the previous year. One of the most satisfactory items in the report is the statement that the directors have succeeded in reducing the mine cost from £3 11s. 2d. to £1 19s. per ton, which is a considerable saving, and should assist greatly to swell the profits. The output of ore for the past year exceeded that of the previous year by 6054 tons. The results of the first smelting season, ended February 5 last, which necessarily had to be looked upon in the nature of an experiment, proved that the process of concentrating and matting the ore by the Austin method is entirely successful. This is most encouraging, and induces one thoroughly to sympathise with the following concluding sentence:—"With the satisfactory and regular working of the Silverton smelter, and the knowledge that the mines are in a condition to supply the smelters with a large tonnage of ore, the directors hope that sufficient profits will be made to enable them to resume payments of dividends within a reasonable period."

ONCE more the Eaglehawk is to be reconstructed. This the shareholders decided upon at the extraordinary general meeting held on Monday last. But their decision was not a unanimous one. Nevertheless, the majority in favour of the scheme, after a poll had been taken, was seen to be overwhelming. One would natually have thought that the shareholders had had enough of reconstruction, and that they would deem it more profitable to themselves to have nothing more to do with it. It is significant, in spite of Mr. Keith's explanation, that Mr. John Wallace should resign the Chairmanship of the company, and also that Mr. Hankey is no longer on the board. As, however, the shareholders attach little significance to their resignations, it would be presumptuous to criticise their action. Probably they think that the appointment of new directors will inaugurate a more prosperous career for the company. As for ourselves, in spite of the statements delivered at the meeting, and the sanguine reports of Mr. Nicholas and Mr. Collingwood Kitto, we are not at all hopeful that a career of success is awaiting the company. The old and the present company have been testing the property for years now, and they ought to have some idea of its value. Mr. Nicholas, however, thinks there is a very great chance for the company at depth, and he certainly argues forcibly in support of his assertion. The shareholders, no doubt, are greatly influenced by the sanguine opinion of so influential an expert. But even the cleverest geologists and mining engineers have been disappointed ere now.

THE makers of mining, rock-drilling, and other machinery should be informed of an important and novel step which the Government of Japan have just taken with a view to placing the Japanese people in direct communication with manufacturers in this country of goods likely to be needed in increased quantities under the new conditions of development which are likely to result from Japan's recent notable victories. One of the earliest requirements is certain to be in the direction of largely-augmented quantities of machinery of all sorts needed to assist in the further rapid industrial progress to which there is every evidence the Japanese have made up their minds. Mining, as well as other engineering plant, will be in extended demand. Hence the advisability that our mining machinery firms should be acquainted with the course the Government have taken. Mr. R. Perrot Forshaw has been appointed by the Mikado's Government to visit this country and propound a scheme "for better interworking between Japanese merchants and others and British manufacturers direct." All financial arrangements are to be amply secured by the chief Japanese bank. The exact details of the proposal are not yet before us, but these, will, no doubt, be available as soon as Mr. Forshaw arrives in this country. In addition to manufacturers, the Chambers of Commerce and other of our trading bodies are to be interviewed, and everything is to be done to promote direct trading. Mining machinery firms should be keenly on the look-out for the earliest expounding of Mr. Forshaw's commission.

THE spirits of the Welsh tin-plate manufacturers have perceptibly revived during the last few days, by renewed reassuring accounts of their chances against native American competition. Mr. J. H. Rogers, the well known authority on tin-plates in Wales, has just returned from a three months visit to America, where he has been enquiring into the prospects of the tin-plate works which Messrs. Morewood and Co., of which firm he is a member, have erected in Indiana. The news which he brings back of the American position is gratifying, though very probably for the sake of his Welsh friends he endeavours to put the very best face on the situation possible. Mr. Rogers does not believe that the American tin-plate market is lost, or anything like it; indeed, he declares that it is "premature" to say that any serious injury has so far been done to Wales by the progress made by American manufacture. In the opinion of this Anglo-American producer, Wales will for a long time continue to be a large tinplate manufacturing district, though for what exact period the Principality will still supply the American market, Mr. Rogers declines to prophecy, "so much depending on the American fiscal policy, and the elections which determine it." There is one portion of this gentleman's advice which is very important. He notes with satisfaction that the Welsh manufacturers are now working away to reduce the cost of production. This point is, he insists, vital, if the American competition is to be defied. He, therefore, advises the workpeople to be very cautious in the wages demands they are now making or may make further ahead.

A RECENTLY floated diamond concern is entitled the Beaconsfield Diamond Mining Company (Limited). It owns a property known as the Lippiatt concession, which consists of a compact block of claims on the south-east side of the Dutoitspan Diamond Mine, Beaconsfield, in the district of Kimberley, South Africa, and is held under a 99 years' lease from the London and South African Exploration Company. We learn that work was commenced on these claims as long ago as January, 1894, and that since that time yellow ground to a depth of 38 feet has been worked out, and a depth of about 42 feet of blue ground below the yellow ground has also been taken out of the claims and placed on the floors to undergo pulverisation. It is reported that this yellow ground has yielded diamonds to the value of £15,150, and that a large quantity of blue ground has been floored, and is being put through the washing machines. In a report to the directors, Mr. Stone, the local manager, and who was formerly manager of the British Diamond Mining Company, estimates that there are about 250,000 loads of blue ground in sight, and if working is continued down to a depth of some of the older Dutoitspan companies several million loads will be available. He adds that the water is equal to washing 5000 loads per day if required. A Mr. Bruce Brand, C.E., writes that he has "no hesitation in stating that the property is of great value;" whilst Mr. Robert Russell Hunter considers the mine an excellent and valuable property, which "ought to yield handsome profits to all concerned."

AT an extraordinary general meeting of the Gwelo Exploration and Development Company, held on Thursday, the shareholders decided unanimously "to adopt certain options acquired by Charles J. Fauvel, Esq. (the Chairman), for the acquisition of a concession of territory in South Africa, bordering on the Transvaal, in extent upwards of 20,000 square miles, and having a population of about 2,000,000 of people, over which territory the concessionaires control the rights to all minerals, the collection of taxes, a free port, the building of a port township, and other valuable rights, comprising railway, telegraphs, and public works, and empower the Chairman to carry the same into effect." Mr. Fauvel, in his speech to the shareholders, gave full and detailed information respecting the country in which their property was situated, and as to the mineral wealth of the concession which they propose to acquire. Mr. Fauvel offers this concession to the company at the same price which he gave for it, making, himself, nothing out of it. This concession has been granted by the Portuguese Government to two gentlemen for the development of the mining and industries over the territory mentioned in the charter. The territory comprises from 15,000 to 20,000 square miles. The shareholders were informed that precious stones had been discovered in several parts of the country, and that the trading prospects are of a promising character.

WE have been anxiously awaiting Mr. Begelhole's explanation of his report on the Cashman's Brilliant Mine. It will be remembered that we gave some prominence to this gentleman soon after his arrival in London from Australia, believing he was an expert from whom we might receive reliable reports on the value and prospects of a gold mine. It will be in the recollection of our readers that in his report, as published in the prospectus, he says:—"The reef runs through the entire length of the property, which gives about 1500 feet on the line, and is 4 feet in width—it being undoubtedly a true fissure lode. Making allowance for the rich shoot of gold where opened on, I am of opinion that the reef will give an average throughout of 4 ounces per ton, and wherever I tested the reef at numerous intervals along its entire length, I panned good colour." Does Mr. Begelhole intend to explain?

PRINCE OF WALES MINE (LIMITED) IN VOLUNTARY LIQUIDATION.—Mr. Edward Ashmead, 2, Drapers' Gardens, the liquidator of the above-named company has this week paid a first and final dividend to all the ordinary creditors on their proved claims, of 20s. in the £, amounting to £1635 13s. 6d.

THE directors of the Coetzeestroom Estate and Gold Mining Company (Limited) have made arrangements, under the advice of a well-known mining engineer, for the starting of the cyanide plant, and they hope, in the course of two or three weeks, to communicate the result.

THE MINING MARKET.

FRIDAY EVENING.

A good tone in Kaffirs, with little business.—Chartered active on a rumoured new capital issue.—West Australians inclined to improve.

ALTHOUGH the actual amount of business doing in the Mining Market during the past week has not been large, prices generally have been good, with a confident undertone that promises well for future improvement. The political crisis has had practically no effect upon the markets with which we are concerned. If the rise in Consols can be attributed by partisans to popular gratification at the accession of the Conservative Ministry, no such pretext can be seized upon in the mining section. At present no notice has been taken of the approaching dissolution and the attendant general election. Past experience proves that whilst it lasts the excitement of any election interferes directly with the Stock Exchange business, not that members of the House themselves are interested to any great extent in politics, but because the greater public which supplies the sinews of war is too engrossed with the polls to attend to investments or speculations. It is to be hoped that the period of disturbance will arrive concurrently with the recognised slack time on the Stock Exchange. At present, however, there is no indication of any general discounting of the event, from which the inference may be drawn that no serious interference is to be apprehended.

The account which commenced on Saturday, and was brought to a successful close on Wednesday, showed a material reduction in the volume of the speculative account. A good many shares were taken off the market by strong buyers, and where accommodation was required by sound men the supply of money was generally in excess of the demand. Rates were not so light as they should have been under these circumstances, but they were, nevertheless, lighter than they have been for some time past. The general Contango quoted on African Gold shares was about 7½ per cent., but in many instances good people were enabled to get their business done at 5 per cent. One or two specialities in which a month or so ago the Account was notoriously weak, such as Johannesburg Investments and East Rands, were carried over on very easy terms, indicating a marked improvement in the character of the account. There was no suggestion of difficulties in connection with the Settlement, and this fact doubtless encouraged the return to the market of some public operators who had been standing aloof, for brokers have reported a marked improvement in their correspondence as compared with the two or three preceding weeks. The fact that making-up prices showed an almost universal balance in favour of holders for the rise likewise tended to inspire confidence. Continental orders came in in good supply on Saturday, and dealings for the new Account were continued in the Street until late in the afternoon. African gold shares were generally good, and Land shares exhibited a tendency to revive, but Jagers were flat. Good news from Coolgardie helped West Australian shares, and several Indians were better. On Monday the general Contango work diverted attention during the morning, but later in the day a strong tone was developed, some biggish orders coming from across the Channel. The Barnato Stocks were specially good and there was a sharp spurt in several Land companies, such as "Pots" and Klerksdorps. West Australians maintained the previous day's firmness. Several Charters Towers shares were in demand, whilst Broken Hills were weak. On Tuesday the Kaffir section was strong, with a marked increase of activity on the improvement reported by brokers in the extent of outside interest. A big rise in Transvaal Gold gave a lead to Kaffirs generally, but Chartered were dull, though other Land shares held their own. Westralians were good, and the Wentworth group was appreciably better. Good buying gave a lift to the New Zealand group, of which Hauraki is the centre. Indians were dull, whilst there were small advances in a number of low-priced Miscellaneous shares. On Wednesday a relapse in Chartered gave a start to a sympathetic reaction all round the African market, though reductions in price were not serious. A temporary interruption of telephonic communication with Paris may have been responsible for some falling-off in the French support. Westralians took a line of their own and went better. There was very little doing in Miscellaneous. On Thursday a further dip in Chartered induced a slight set-back in most of the Rand favourites, which, however, did not pick up again when a spurt in Chartered during the last hour left them actually better on the day. Potchefstrooms again showed exceptional strength, but otherwise there was not much doing in Land shares, and changes in Westralians were unimportant. Queensland and New Zealand varieties received a fair share of attention, but on the whole there was a distinct falling off in the volume of business. To-day the attendance has been thinner and business quiet, owing in a measure to the counter attractions of Sandown Park. Next week there will be the Oxford and Cambridge cricket match and sports to draw members from their work. Kaffirs close to-night generally below their best, but the tone is healthy.

South African Mines.

The most important rise in the Gold section has occurred in Transvaal Gold, which stood at 5 7/16 on Saturday morning, shot up to 6 on Monday, and on Tuesday were at one time as high as 7 1/16. Extensive buying was reported from Paris on the flotation of a subsidiary company, known as the Grootfontein, the shares of which are quoted to-day at ½ premium. Transvaals have reacted on profit taking to 6⅜, but still mark a gain of 1 7/16 on the week. In the Barnato group special strength has been shown by Buffelsdoorn which touched 7 on Monday, and close ⅜ better at 6½. A sensational movement occurred on Monday in Croesus, which shot up 1/16, and are finally ⅛ higher on the week at 3¼. Ginsberg went to 2 on Tuesday, but reacted, and a recovery of ⅛, for which no explanation is necessary, carried Langlaagte Royal to 4. New Primrose went to 7⅛, but close only ⅛ better at 7¼, whilst improvements ranging up to ¼ are shown in Glencairn at 4⅛, Spes Bona at 3 7/16, and Pleiades at 1½. Balmorals have been inquired for on rumours of amalgamation with the Gardner Company. The price, after being 1/16 better, closes ⅛ better at 3¼. Of the Robinson Stocks, chief attention has been given to Randfontein, although the price is only 2s. 6d. better at 46s. The good effect of a 25 per cent. dividend on Langlaagte Estate, was counteracted by an adverse criticism in a South African paper on the speech of the Chairman at the recent meeting. The shares are unchanged at 5½. Block B closes 1s. 6d. higher at 24s. 6d. Deep Level shares have once more been in demand. Nigel Deep has scored 1/16 at 3 7/16, whilst East Rands on the improved condition of the Account put on 1/16 at 5¼, receding this afternoon to 5. The subsidiary St. Angelo shares have come into increased favour, closing half a point up at 4⅜, with Comets ⅛ better at 3⅜. The fluctuations in Rand Mines have been within a smaller compass than usual, and the net change on balance is only ¼ to the good at 32. Consolidated Deeps are ⅛ better at 5¼, but Gold Fields Deep close practically without change at 7⅛. Roodepoort Deep, in spite of a stiff contango, are 1/16 better at 4 1/16, and Geldenhuis Deep ⅛ higher at 9¼. A steady improvement day by day has been achieved by Bantjes at 3 1/16, Wolhuter at 8⅛, and Orions at 4¼, a clear gain of ⅛ in each case. Afrikanders have put on ⅛ at 1⅞, and a special spurt has carried Banketa, hitherto neglected, from 6s. 6d. to 11s. The 50 per cent. dividend declared on City and Suburban has had no more effect on the shares than a rise of ¼ at 26⅜, Wemmer being affected to the same extent at 11⅛ on a cent. per cent. distribution, the first since 1891. Clewer Estates had a jump of ⅜ on Tuesday, which is maintained in the last price, 2⅜. A revival of interest must be noted in Coetzeestrooms, which changed hands on Thursday at 11s. 6d. The price is easier to-day at 10s., but the shares are talked better. It is rumoured that a good reef has been discovered on the estate. Geldenhuis Estate came into demand on Saturday and Monday, touching 7 on the declaration of a 30 per cent. interim dividend, and the adoption of the provisional agreement with the Treasury Mining Company, under which the company will acquire 35,000 fully-paid Treasury shares. The favourable report issued by the directors of Geldenhuis Main Reef has put the shares the fraction better at 1 1/16. George and May have returned into favour in a marked degree, and at 2 are 7/16 better on the week, and more than double their price during the recent slump. Jubilee is ¼ up at 10¼, and Heriot ⅛ better at 12, on dividends of 30 and 50 per cent. respectively. A scheme for the readjustment of the capital of the latter company is postponed for discussion till 20 August. Modderfontein had a jump of 1/16 on Tuesday, touching 16⅜, but the advance has not been maintained, the last price 15⅞ being only ⅛ to the good. Luipaard's Vlei are slightly better at £1, and there has been some strong buying of Lisbons, which leaves them 1s. 6d. higher at 9s. A special feature to-day is the buying of Knights which close ⅜ up at 9⅜ the bulk of the gain having been scored this morning. Rietfonteins also have been conspicuous this afternoon, closing ⅝ up at 4⅝, after being 4⅞. Simmer and Jack had a jump on Monday to 16⅛, which has been maintained. Spitzkops were nearly 2 on Wednesday, but have reacted to 1⅞. These shares are still talked better. The modest dividend of 6 per cent. upon Robinson £5 shares has not prevented a gain of 3/16 at 9⅝. Salisbury are exceptionally ⅛ easier at 4⅞. Van Ryns are ⅛ better at 9¼, and the subsidiary Van Ryn West unchanged at 5. Insignificant improvements are showing in Chimes at 3 7/16, Crown Reef at 10⅛, Durban at 7⅛, Ferreira at 17½, George Goch at 3⅛, Henry Nourse at 6⅝. Kleinfontein at 5⅝, Meyer and Charlton at 7⅝, Sheba at 2 1/16, and Tati Concessions at 3 7/16.

There has been a good deal of excitement in Chartered, which have fluctuated rapidly between 4 3/16 and 4½, the last price being 4⅜. Heavy sales were pressed on Wednesday, 15,000 shares changing hands in one line. It is confidently asserted that a new capital issue is on the way, and it will take the form of Ordinary shares at such a price as to give a bonus to present holders, the proceeds being devoted to the extinction of Debentures. Colour is given to this suggestion by a strong rise in the Debentures to-day. They were bid up £1 at a time to 127, as compared with 115 a week ago. At the close there is a reaction to 120-125. A speculative clique has been busily engaged in putting Potchefstrooms better, with such success that the last price (2⅜) shows a gain of 1/16 on the week. Klerksdorps sympathetically moved up to 24s. 6d., but the gain has since been reduced to 4s. at 23s. Henderson's are ⅜ better at 3 1/16. Zambesia have scored ⅛ at 3½. Oceana 1/16 at 2⅜, and Pardy's Mozambique ⅛ at 3. The last move is accompanied by rumours of a further dividend. Consolidated Gold Fields are firm at 10⅜, and Gold Trust have put on 1/16 at 8⅛. "Johnnies" are good at 4 1/16 on the clearing out of weak bulls. Balkis at 6s. and Graskop at 8s. are appreciably better. In Diamond shares the improvement in De Beers and the fall in Jagers made further progress, but there has since been a reaction in each case. The secretary of the latter company wrote that the fall of the reef, on which the selling was based, was unimportant. The shares have rallied 3/16 to 9¼, whilst De Beers are finally only 1/16 better at 22 1/16. Gains of 1s. are shown in Gordons at 7s. and St. Augustines at 11s.

West Australians.

The leading feature in this group has been the advance of Great Boulders from 1⅜ to 2 on the excellent crushing, 1282 ounces of gold from 161 tons. Good reports from the Hampton Lands and Plains have put their shares up ⅛ to 4¼ and 2⅜ respectively. Big Blows have risen 1/16 to 1/16 on the appointment of Mr. Vivian as superintendent. Austins had a slump of nearly 50 per cent. of their market value to 1/16, but rallied slightly before the close. Mainland Consols are the turn better at 1⅛ on the cable announcement of a strike of rich ore. Londonderrys are a shilling or so harder at 15s. Coolgardie Syndicate has risen 1s. 3d. to 15s. 3d., Sherlaws are firm at 11s., and Bayley's a few pence better at 10s. 3d. on a mining return of 475 ounces from 320 tons. Otherwise there is not much to report in the way of market changes.

Miscellaneous.

The volume of business in this department has not been great, but prices are well maintained. The New Zealand group has been strong. Hauraki is 3s. higher at 15s. 6d., buying being induced by the announcement of £6000 profit for the past month. The Waihi monthly return was of the estimated value of £8000, and the shares are ⅛ better at 6⅜. Kapangas have put on 9d. at 10s. 6d. on an encouraging report from the manager. In Copper shares the excitement has toned down. There has been a set back in Tintos on the withdrawal of special support required for the Debenture flotation. At 16 the shares are ⅜ lower, with Tharsis sympathetically 1/16, and Mason's ⅛ lower. Indian Gold shares are irregular, slight gains being marked in Champions at 4⅜ and Nundydroog at 1⅛, with equally insignificant losses in Mysore at 2⅛ and Ooregum at 3⅛. Mysore Reefs are 1s. 9d. up at 9s. 6d. There is to be a reconstruction of the old Apallachian, which will follow the lead of the Idaho in acquiring a Coolgardie property. Montanas, after being 3s. better at 15s. 6d., close at 14s. 6d. Broken Hills have been dull, but close without change at 2⅛. The Wentworth group has been strengthened by a half-crown dividend declaration on Aladdins, and a crushing yield of 5000 ounces. Aladdins are ⅛ better at 1⅛, with Wentworths fluctuating round £1. There is very little doing in the Charters Towers group, though good returns have come from Mill's Day Dawn, New Queen, Day Dawn Block and Mosman. Carringtons had a smart rise from 7s. to 10s. 6d. on Tuesday. Alaska Treadwell has put on ⅛ at 4⅛ on the strength of having achieved the largest monthly bullion shipment, as well as the largest net return in its history.

British Mines.

A better feeling has been apparent this week in the Cornish Market. This has probably been brought about by the change of Government, and the belief that when an appeal is made to the

country will give the new Government a substantial working majority. Dolcoaths have rallied to 47, but some are shy, and we question if many shares could be had at 50. It is generally supposed that the new company will be registered in a few days, and in early course the shares will be dealt in at £1. The prospects at the mine are improving; with the least turn in tin some activity may be expected. Carn Brea steady at 37s. 6d. Blue Hills 15s.; at to-day's meeting a call of 1s. 6d. will be required. East Pools are quiet about 5, and, pending the settlement of the water question with Wheal Agar, it is not likely that shares will command much attention. Tincroft firm 7¼. West Kittys lower with sellers 5¼. Wheal Grenville about 12¼, with but few offering.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—

CONSOLS.—Monday, July 1.

STOCKS AND SHARES.

JULY.

Ticket Days.	Account Days.
Wednesday, July 10	Thursday, July 11
Thursday, July 25	Friday, July 26

Contango Days for South African Market:—

Monday, July 8 | Tuesday, July 23

CORRESPONDENCE.

*** We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.*

KANGARILLA SILVER.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—The essence of Professor Schnabel's famous report to the Broken Hill Proprietary Company on the treatment of their sulphide ores is summed up in the concluding sentence:—"There is no doubt that at the present stage of metallurgical knowledge, those methods having for their object the removal of the zinc previous to smelting are the correct ones to be adopted in the treatment of the sulphides."

The following is copy of a cable received this day from this company's Aclave Mine, in South Australia:—"Assay value of the ore before treatment 40 to 45 ounces of silver per ton.—Extraction. Silver 46 per cent., zinc 85 per cent."

This result has been obtained by the French-Stewart process, which has just been started at the above mine. It may be held to have satisfactorily solved the problem of the profitable treatment of the sulphide ores. It amounts to a complete extraction of the zinc, for the small balance of 15 per cent. has, no doubt, been volatilised in the process of roasting, and even this will be recovered in the condensing chamber.

The percentage of silver recovered by leaching in this—only the second—trial is less than will doubtless eventually be obtained; but this is of no consequence, for when zinc has been removed the whole of the silver can be recovered by smelting along with the lead. The zinc also will be a valuable product to be sold, either as oxide or carbonate of zinc, as may be most advantageous.—Yours truly, JOS. ROBERTSON, Secretary.

June 26.

DOLCOATH.

TO THE EDITOR OF "THE MINING JOURNAL."

DEAR SIR,—In your issue of April 12 I note some remarks by "Atom," and as a Cornishman and miner feel bound to offer these lines, hoping to dispel some of the ideas held by men resident outside the county.

As to Cornish "procrastination," as "Atom" calls it, he ("Atom") appears to labour under the impression that Cornish mining men are only now beginning to realise the fact that a perpendicular shaft at Dolcoath would be advantageous, indeed essential, to the successful workings of that mine, and reminds us that two years since he "pointed out" the necessity of such a shaft. Long before "Atom" so kindly "pointed out" this necessity, the desirability of a perpendicular shaft was recognised.

Works of this character are not restricted through want of mining knowledge amongst Cornish managers. One of the chief drawbacks to an outlay is (or has been) the short leases under which the mines are held, and the probability of a heavy sum being exacted for the privilege of renewing the lease, especially in the case of a very prosperous mine.

In foreign mines proprietors often have the freehold, at least for as long a period as they continue to work their mines, and mines held under those conditions present an entirely different aspect. It may be asked even how many Cornish managers of foreign mines have not adopted every modern appliance and means at the mines under control?

That Cornish mining is behind in many respects I frankly admit; at the same time, the absence of perpendicular shafts or improved machinery is not strictly due to the ignorance or procrastination of our managers there, but there are other circumstances against which they have to weigh the matter, and, to use an old expression I have often heard in Cornwall, "Circumstances alter cases."—Yours faithfully, CORNISHMAN.

Minas Geraes, Brazil, June 4.

DEVON FRIENDSHIP MINE.

TO THE EDITOR OF "THE MINING JOURNAL."

DEAR SIR,—Hearing that a company is being formed for the purpose of working the above property, I shall esteem it a favour if the promoters or vendors will answer the following questions for the benefit of the mining public generally:—Is it true that there are very serious liabilities concerning the water and underground workings? Is this a reason for disposing of the property? Is it a fact that the burrows have already been worked over for arsenical mundic? Is it true that these burrows will not produce 3 per cent. of mundic? Is it correct that this property was worked about nine years since with a capital of £40,000, and went into liquidation? Is it true that the present vendor lost a very large sum of money in it? Is it true that this property was publicly offered for sale and bought for a few hundreds of pounds? Is it true that a very large proportion of the property bought has been let off to farmers and others? Is it true that the proposed local secretary is a son of the vendor? Is not the said Captain Gill, who has reported on the property, a very intimate friend of the vendor? Is it true that the said Captain Gill never had any connection whatever with the arsenic works at Bertha Consols? Is it true that the arsenic works at Bertha Consols was not established until after Captain Gill had left the company? Is it true that this same property was offered to the public some two years since for the production of aluminium, but did not float? Is it possible to work the property fairly with only £10,000 of plant, &c.?—Yours obediently,

London, June 26. W. S.

The British Guiana Prospecting and General Developing Company (Limited), of Billiter Buildings, London E.C., invite Subscriptions to the undermentioned issue.

The LIST will OPEN on the morning of MONDAY, July 1, and CLOSE for both London and Country at or before four o'clock on WEDNESDAY, July 3, 1895.

SIR WALTER RALEIGH MINING COMPANY (LIMITED),

BRITISH GUIANA.

Incorporated under the Companies' Acts 1862 *to* 1890.

Capital £100,000,

in 100,000 shares of £1 each of which 49,000 are taken by the Vendors on account of purchase consideration. The remaining 51,000 shares are now offered for subscription at par. Payable 2s. 6d. per share on application, 5s. on allotment, 2s. 6d. one month after allotment, and the balance by calls not exceeding 2s. 6d., as and when required, at intervals of not less than one month.

DIRECTORS.

R. L. Alston, Esq., Rose Hall, Sutherlandshire.
The Hon. J. H. H. Berkeley (late Vice-President of the Federal Council of the Leeward Islands), 11, Onslow Crescent, London, S.W.
Thomas Newton, Esq., Astley Hall, Shrewsbury.
William Veitch, Esq., J.P., Parkhall, Crieff, N.B.
R. G. Webster, Esq., M.P., 83, Belgrave Road, London, S.W.
In addition to a Local Advisory Board.

Bankers—The British Linen Company Bank, Edinburgh, and Branches in Scotland, and 41, Lombard Street, London, E.C.; the Colonial Bank, Georgetown, Demerara.

Solicitors—Messrs. Lawrance, Waldron, and Webster, 14, Old Jewry Chambers, London, E.C.; Messrs. Williams and Neville, 23, Austin Friars, London, E.C.

Auditors—Messrs. Josolyne, Miles, and Blow, 28, King Street, London, E.C.

Secretary and Offices (*pro tem.*)—C. A. Frith, Billiter Buildings, London, E.C.

PROSPECTUS.

This company has been formed to acquire and develop fourteen gold mining claims, comprising about 240 acres, on the Arakaka Creek, on the Barima River, in the north-west district of the Colony of British Guiana. Each claim is 1500ft. by 500ft., or a little over 17 acres.

The importance of British Guiana as a gold-producing country, and the marvellous growth of the industry, may be gathered from the following official Government record of gold produced:—

	Ozs.	dwts.	grs.
1884	250	0	0
1885	939	0	0
1886	6,518	1	12
1887	10,966	14	0
1888–89	20,116	1	8
1889–90	32,332	16	5
1890–91	66,864	4	21
1891–92	110,555	13	5
1892–93	134,124	7	23
1893–94	138,527	16	14
1894, 1st April to 31st Dec. ...	110,432	4	16 for 9 months only.
Total	631,746	19	8

From the Barima in the north-west district during 1892-3, 1893-4, 55,252oz. 4dwts. 17grs. of gold were obtained. (Vide Government returns).

The Commissioner of Mines of British Guiana, Mr. E. P. Wood, in his official report, dated 4th May, 1893, says, speaking of the north-west district of the province. "I consider this district has greater possibilities than any gold field I have ever seen. I do not mean the Arakaka Creek only, but the whole neighbourhood. The reefs are very rich, and increase in size the deeper they get; there is not the slightest doubt that before long there will be a large mining population settled there."

The property has been reported on by Mr. Owen, M.E., who is now on the spot; by Mr. J. F. Connolly, M.E., who has had large experience in South Africa; and by Mr. H. Buckley, M.E., Manager of the Warimba Development Syndicate in British Guiana.

Mr. T. G. Sweet, M.E., late Government Inspector of Mines in British Guiana, was also specially sent from this country to report upon the claims for the directors.

As will be seen from the reports which accompany this prospectus, the property to be acquired by the company has been extensively explored, and three reefs have been proved, which run through the length of the claims. The work which has been done consists of shafts sunk to a depth of 152 feet, and of levels driven 422 feet, which cut and prove the reefs. Besides these, there are various prospect holes and open cuts which expose the reefs.

From ore taken from these workings two crushings have been recently made on the spot with a two-stamp Tremaine mill. One crushing of 16 tons gave 3 ounces to the ton, the other of 50 tons gave 2 ounces to the ton of 2000 lbs. Mr. Sweet reports that most of these millings took place whilst he was on the spot, three-fourths being extracted from Owen's Shaft and the cuttings on No. 6 claim, and the rest from other properties belonging to the owners of the 14 claims, and that the ore crushed was good general sample.

The ground rises to the north-west from the level of the Arakaka Creek, and so admits of a considerable amount of work by tunnel as well as by shaft, and gives a considerable body of ore which can be worked in dry ground and by overhead working, thus facilitating the early work of the mine, and obviating the use of pumps for some time.

Besides the ore in the reefs there is an immense quantity of loose quartz, or float rock, shed from various reefs largely showing visible gold distributed over all the claims, the amount of which is estimated by Mr. Connolly at about 40,000 tons, which estimate Mr. Sweet considers probably under the mark. This can be collected and milled at a cost not exceeding 3s. 6d. per ton.

Mr. Sweet states that it can be worked so easily that each head of stamps should mill at least five tons of float rock per 24 hours, so that a 10-stamp mill could work at least 50 tons per day, that is a run of 300 working days would mill 15,000 in a year.

If this rock only gave 5 dwts. the gross profit per ton (taking the value of the gold at £3 17s. 6d. per ounce) would be 19s. 4½d. Estimating the cost of mining, &c., at 8s. 6d. per ton, this would give a net profit of 10s. 10½d. per ton, or on 15,000 tons of £8156 5s. a year from float rock only.

This rock could be treated directly the mill was started, and the mine would thus be a dividend-paying one from the commencement of operations, even independently of the rich ore from the reefs.

The ore available to a depth of 95 feet in one of the reefs, known as Owen's, is estimated by Mr. Sweet at 20,000 tons, and from another, the De Abru, at 6,000 tons. The third reef has not been sufficiently exploited to justify an estimate.

A general sample taken by Mr. Sweet from the whole of the workings has been assayed by Mr. B. Kitto, of St. Swithin's-lane, and gave 1 ounce 19 dwts. 19 grains per ton. Another sample from the De Abru Reef, also assayed by Mr. Kitto, gave 14 ounces 19 dwts. 13 grains.

Mr. Sweet considers that the cost of mining, milling, and other incidental expenses (including Government Royalty) should not exceed 25s. a ton, or a little over 6 dwts., so that ore (as distinct from float rock) of only 10 dwts. per ton, would give a substantial profit.

It is proposed to at once put up a Twenty Stamp Mill capable of treating 60 tons of ore per day. A run of 300 working days treating 18,000 tons, and reckoning on 1 ounce of gold to the ton, would produce 18,000 ounces per annum, which at the above cost of production—viz., 25s. a ton, should yield an estimated net yearly profit of about £45,000. This output can be doubled by duplicating the number of stamps when the mine is more fully developed.

The property is situated between 4 00 and 5000 feet from the landing on the Barima River, from which there is a road good at all seasons to the mine, and a line of light railway from the Arakaka landing has been surveyed, which will run through or adjacent to the property of the company.

There is a regular steam communication from Georgetown by sea up to Mount Everard on the Barima, and from there in a smaller steamer to the Arakaka landing, the voyage taking about three days.

The mine, therefore, is in direct water communication with England by a voyage of about seventeen days, the numerous advantages of which are obvious, particularly with regard to cheap freights.

There is a steady supply of good coloured labourers at moderate wages, and the climate is not unhealthy, with cool nights.

The supply of timber for all purposes may be considered as practically unlimited, and there is an abundance of good water.

The property is of such extent that, if considered desirable, subsidiary companies may be formed to buy and work portions of it.

Mr. Sweet has so high an opinion of the property that he is prepared to take charge of the works, to put up the mill, and to place the mine in proper working order.

The vendors, the British Guiana Prospecting and General Developing Company (Limited), who pay all expenses of and incident to the formation of the company to the first allotment, have fixed the purchase consideration to be paid for the property at £30,000, payable as to £2500 in cash, £49,000 in fully-paid shares of this company, and the balance in cash or fully-paid shares, or partly in cash and partly in such shares, at the option of the directors, under and subject to the conditions of the contract of sale. This will leave £20,000 available for subscription to provide working capital, the whole of which will be guaranteed before allotment.

Messrs. Alston, Berkeley, and Webster, three of the directors, being also directors of the vendor company, will act after allotment and completion of the purchase. It should also be stated that Mr. Connolly has an interest in the property.

The following contracts have been entered into:—

19th December, 1894.—John Hart Hardtman Berkeley and Robert Tennant, John Francis Connolly and Richard Onions Backhouse, representing the Barima Development Syndicate (Limited).

28th March, 1895.—John Hart Hardtman Berkeley and the Concessions and Mercantile Agency (Limited), as Trustee for the British Guiana Prospecting and General Developing Company (Limited).

29th March, 1895.—The last-named Agency as such Trustee, and Charles Arthur Rose.

29th March, 1895.—John Hart Hardtman Berkeley and Charles Arthur Rose.

25th April, 1895.—The like.

3rd April, 1895.—John Hart Hardtman Berkeley and the Barima Development Syndicate (Limited).

18th April, 1895.—John Hart Hardtman Berkeley of the first part, the Concessions and Mercantile Agency (Limited) (as such trustee), of the second part, and the British Guiana Prospecting and General Developing Company (Limited), of the third part.

23rd April, 1895.—Between the same parties and the British Guiana Prospecting and General Developing Company (Limited).

1st June, 1895.—Between the British Guiana Prospecting and General Developing Company (Limited) (the vendors), of the one part, and this company of the other part.

The above contracts, with a print of the Memorandum and Articles of Association, may be seen at the offices of the solicitors. Contracts have been, or may have been, entered into with third parties as to the guarantee or subscription of part of the capital and the promotion of this company, to none of which the company is a party. Applicants for shares will be deemed to have had notice of the latter contracts, and to have waived their right (if any) to the dates, names of parties, or any other particulars of any such, whether under Section 38 of the Companies Acts, 1867, or otherwise, and subscriptions will be received upon that condition only.

The statements in this prospectus are based on the Government records and the reports above mentioned. Copies of the reports, together with a map and sketch plan of the property, accompany the prospectus, and the originals may be seen at the offices of the company.

Application for shares should be made on the form accompanying the prospectus, and forwarded to any of the branches of the British Linen Company's Bank, together with a remittance for the amount payable on application. The allotment will be made as early as possible after the subscription is closed, and in cases where no allotment is made, the amount deposited on application will be returned at once, without deduction. If the number of shares allotted be less than that applied for the surplus will be credited in reduction of the payment on allotment, so far as necessary, and any balance will be returned.

Prospectuses and forms of application may be obtained from the solicitors and at the offices of the company.

London, 13th June, 1895.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, JUNE 28.

Copper.

THE net result of the transactions in the speculative market for G.M.B.'s has been a loss of 3s. 9d. over the week. The opening business was in s.c. at £42s. 12s. 6d., and three months at £43 2s. 6d. to £42 17s. 6d., the turnover for Monday amounting to 450 tons. On Tuesday 750 tons changed hands at £42 8s. 9d. to £42 5s. for spot and £42 16s. 3d. to £42 11s. 3d. for forward. Wednesday's market was very active, the turnover amounting to 1700 tons, whilst the cash prices realised were £42 5s. to £42 3s. 9d. and three months £42 12s. 6d. to £42 16s. 3d. Yesterday 425 tons changed hands at £42 12s. 6d. three months and £42 5s. to £42 6s. 3d. cash. To-day £42 7s. 6d. and £42 8s. 9d. were paid for cash, and £42 13s. 9d. to £42 16s. 3d. for three months, the market closing steady at £42 8s. 9d. to £42 10s. s.c., and £42 15s. to £42 16s. 3d. three months. It will be noticed that, taking the totals, the transactions this week have been more moderate than those of last week. By far the greater part of these transactions consisted simply of carrying by jobbers from one prompt to another, no fresh speculative orders at all coming in, and the few purchases recorded being evidently made by some holders to prevent the decline from making further progress. There is a full supply of consumers' copper, and shipments from America continue on a large scale. In manufactured and consumers' copper only a moderate business has been done.

Tin.

After opening at an advance of 2s. 6d. s.c., with business in cash Straits at £83, was depressed by the easier prices called from the Straits, and by the absence of speculative support whilst sellers were somewhat pressing. The result was a fall from £83 to £82 s.c. by Wednesday, but a reaction set in at this point, which gradually carried the spot price up to £82 15s., which was paid to-day. The value of three months' Straits has ranged from £82 7s. 6d. to £82 5s., whilst transactions were about 140 to 150 tons each day. The close is firm at £82 10s. £82 12s. 6d. s.c., and £82 15s. to £82 17s. 6d. three months. Billiton declined from fl. 37½ to fl. 37¼, but was wired this morning firmer at fl. 37½ s.c. and fl. 37¾ three months with spot Banca at fl. 38.

Pig Iron.

Last week's shipments from Scotland amounted to 4359 tons, a decline of 1424 tons as compared with those of the corresponding week of 1894. The Glasgow market was strong at the outset with business at advancing prices, 44s. 1½d. being reached on Tuesday for s.c. Scotch. Since then the market has been steady with business down to 43s. 9d. The close is firm at 43s. 11d. s.c. and 44s. 1d. a month buyers. Hematite and Middlesbrough close respectively at 44s. 0½d. and 35s. 7d.

Spelter

closes firmer at £14 15s. sellers of ordinaries, and £14 17s. 6d. sellers of specials, with buyers at about half-a-crown less.

Antimony

is steady and unaltered at £32.

Quicksilver

also continues at the last prices reported, *i.e.*, £7 10s. firsts and £7 8s. to £7 8s. 6d. seconds.

The following are to-night's (June 28) prices of metals:—

	£	s.	d.		£	s.	d.
Copper.							
Tough cake and ingot	45	5	0	.....	45	15	0
Best selected	46	5	0	.....	46	15	0
Electrolytic Copper	48	0	0	.....	49	0	0
Sheets and sheathing	52	0	0	.....	52	10	0
Flat bottoms	55	0	0	.....	55	10	0
Chili bars ... } spot, & 3 months respectively	42	8	9	.....	42	15	0
Good merchantable, } spot, & 3 months respectively							
Copper tubes, seamless	—			.....	0	0	7¼
Alloys.							
BRASS: Wire	—			.....	0	0	5¼
,, Tubes (solid drawn)	—			.....	0	0	6
,, Sheets	—			.....	0	0	5¾
PHOSPHOR BRONZE: Alloys II. ... }	—			.....	78	0	0
,, ,, III. or } Cog Wheel Brand	—			.....	81	0	0
,, ,, VII. ... } Cog Wheel Brand	—			.....	83	0	0
,, ,, XI. ...	—			.....	78	0	0
,, ,, Vulcan brand A1 ...	—			.....	72	0	0
DURO METAL	—			.....	73	0	0
BULL'S METAL	—			.....	65	0	0
Ferrobronze (Vivian's).							
Ingots ... ...per lb.	0	0	5¼	.....	—		
Ordinary sheets, plates, bolts and bars	0	0	5½	.....	—		
Screw bolts and nuts	0	0	8	.....	—		
Pump rods, plain	0	0	7	.....	—		
,, finished	0	0	10	.....	—		
DELTA METAL: No. 4 (per ton)	—			.....	—		
,, Sheets and plates (per lb.)	—			.....	—		
,, Bars, round, square, flat (per lb.) ...	—			.....	—		
,, ,, hexagon (per lb.)	—			.....	—		
Tin.							
English, ingots, f.o.b.	86	15	0	.....	87	0	0
,, bars	87	15	0	.....	88	0	0
,, refined	88	15	0	.....	89	0	0
Straits, spot and 3 months respectively	82	17	6	.....	83	17	6
Australian spot, and three months respectively ...	83	7	6	.....	83	12	6
Banca ,, (in Holland)	83	12	6	.....	83	15	0
TIN PLATES: Charcoal, best quality ... per box	0	17	6	.....	0	14	0
,, ,, ordinary	0	11	0	.....	0	11	6
,, Coke, best quality	0	10	6	.....	0	11	0
,, ,, ordinary	—			.....	0	9	0

These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

Iron.							
Pig, G.M.B., f.o.b., Clyde, spot	—			.....	2	3	11
,, Scotch pig, No. 1 Gartsherrie	—			.....	2	13	6
,, ,, Coltness	—			.....	2	12	0
,, ,, Clyde	—			.....	2	8	0
,, ,, Govan	—			.....	2	8	0
Bars, Welsh, f.o.b. Wales	—			.....	4	17	6
Plates ,, ...	—			.....	5	0	0
Bars, Staffordshire, at works	—			.....	4	17	6
Sheets ,, ,, ...	—			.....	5	5	0
Plates ,, ,, ...	—			.....	5	2	6
Hoops ,, ,, ...	—			.....	5	10	0
Ship plates, Middlesborough	—			.....	4	12	6
STEEL: English spring	—			.....	10	0	0
,, ,, cast	—			.....	42	0	0
,, Rails at works, according to section	3	10	0	.....	4	15	0
Lead.							
Spanish or soft foreign	10	3	9	.....	10	5	0
English pig, common	10	5	0	.....	10	7	6
,, L.B.	—			.....	11	0	0
,, sheet	—			.....	11	10	0
,, bar lead	—			.....	11	10	0
,, pipe	—			.....	12	0	0
,, red	—			.....	12	15	0
,, white	—			.....	16	5	0
,, patent shot	—			.....	14	10	0
Spelter.							
Silesian ordinary brands	14	12	6	.....	14	15	0
,, special brands	14	15	0	.....	14	17	6
English Swansea	15	5	0	.....	15	7	6
Sheet Zinc	18	0	0	.....	18	2	6
Antimony.							
Antimony	—			.....	32	0	0
Quicksilver.							
Flasks, 75 lbs. warrants	7	8	0	.....	7	10	0
Manganese.							per unit.
Ore, c.i.f., U.K. ports							
1st quality, 50 per cent. and upwards	0	0	10	.....	0	0	11
2nd ,, 47 per cent. to 50 per cent.	0	0	9	.....	0	0	10
3rd ,, 40 ,, 47 per cent.	0	0	7½	.....	0	0	9
Aluminium.							Per lb.
98–99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)					0	1	6
do do (1 ton lots)				.....	0	1	7
Nickel.							
98–99 per cent. guarantee	0	1	8	.....	0	1	9

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron; *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; ‡ in the "Head Office" column of African Mines signifies that the address given is not that of the head office, but of a sub, or transfer office; and †, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

** The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name.	Closing Price, June 28, 1895	Closing Price, June 21, 1895.	Am't. of Share £ s.	Latest Dividend	Called up Per Share. £ s. d.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Blue Hills ...CT	12/6 17/6	12/6 17/6	*	2/- May, '81	5 19 5	5,353	Cornwall	Camborne.
Botallack ...T	—	—	*	—	51 4 6	1,380	Cornwall	St. Just.
Carn Brea ...T	1⅝ 2	⅞ 2	*	2/6 Dec., '93	22 8 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen ..T	5/- 10/-	5/ 10/-	*	—	35 15 10	4,900	Cornwall	Camborne.
Devon Gawton CA	par ¼ pm.	par ¼pm.	1 0	—	0 12 6	25,000	Tavistock	8, Finsbury circus.
Devon Gt Cons. CA	1⅝ 1⅞	1⅝ 1⅞	5 0	1/6 May '95	2 0 0	10,240	Devon ...	8, Finsbury circus.
Dolcoath ...T	43 48	42 44	*	12/6 Apr., '94	9 12 6	4,700	Cornwall	Camborne.
Drakewalls CTM	—	—	0 5	—	0 2 0	61,856	Cornwall	Dashwood House.
East Halkyn ...	20/ 25/-	20/ 25/	1 0	—	0 12 6	12,000	Flintshire	67, Lord St., Liverpl.
East Pool ...AT	5 5⅛	5 5⅛	*	1/6 Sept, '94	0 9 9	6,400	Cornwall	Illogan.
Gawton ...CA	—	—	2 10	—	2 7 0	12,000	Devon ..	20, Great St. Helens.
Great Laxey ...L	1 2	1 2	4 0	5/- Apr., '92	4 0 0	15.000	I. of Man	Douglas, Isle of Man.
Green Hurth ...L	1/6	1/6	1 0	-/6 June '89	0 19 0	32,000	Cmberlnd	Newcastle.
Halkyn ... L	9 10	9 10	1 0	2/- June, '95	1 0 0	10,000	Flintshire	Chester.
Do. Dis. Mn. Drain	10 11	10 11	10 0	4/- Mar. '95	10 0 0	10,000	Flintshire	CornEx.Cmb. Chestr.
Isle of Man ...L	3¾ 4⅛	3⅞ 4⅛	5 0	2/- — 95	5 0 0	14,000	I. of Man	Chester.
Killifreth ...T	7/6 12/6	7/6 12/6	*	1/6 Nov., '94	5 11 6	6,000	Cornwall	Truro.
Leadhills ...L	15/ 20/	15/ 20/	6 0	3/- Sep. '92	6 0 0	20,000	Lanarksh.	30, Finsbury-circus.
Llanarmon ...	par	par	1 0	—	1 0 0	21,990	Denbigh	8. Werburgh Chmbrs
Llanarmon ...	par	par	1 0	—	0 15 0	3,790	Flintshire	Chester.
Levant ...CT	4¾ 5	4¾ 5	*	4/- Nov., '94	11 9 6	2,500	Cornwall	Penzance.
Lovell ...T	—	—	*	1/3 Nov., '91	1 16 7	7,165	Wendron	3, Gt. Queen-st., S.W.
Minera ...L	—	—	5 0	5/6 Mar. '90	5 0 0	9,000	Denbghsh	Minera, N. Wales.
Nenthd&Tndle. LZ	3/6	3/6	1 0	6% Feb., '91	0 18 0	48,815	Nthumbld	Newcastle-on-Tyne.
NewCooksKitn. TC	—	—	*	—	10 18 3	4,900	Cornwall	Camborne.
New Minera ...	—	—	1 0	1/- Oct., '92	1 0 0	30,000	N. Wales...	8, Queen-street-place.
North Hendre ...	—	—	2 10	8 p c year 81	2 10 0	11,854	Flintshire	11, Nwgt. st., Chstr.
Parc ...LZ	—	—	1 0	—	1 0 0	5,000	Llanrwst...	Billiter sq. buildings
Phoenix United TC	1/6 2/-	1/6 2/	*	1/- Mar. '90	7 4 8	10,665	Cornwall	Liskeard.
Polberro ...T	15/ 20/	15/ 20/	*	—	3 7 9	18,000	Cornwall	37, Walbrook.
Rhosemor ...L	par	par	1 0	10 p c Sept. 91	1 0 0	1,000	Flintshire	CornEx.Cmb.Chestr.
Rhosemor ...L	par	par	1 0	—	0 19 0	18,000	Flintshire	CornEx.Cmb.Chestr.
So. Condurrow TC	2/6 7/6	2/6 7/6	*	3/6 Apr. '93	7 17 6	6,123	Cornwall	20, Great St. Helens
South Crofty TA	10/ 15/	10/ 15/	*	—	17 7 6	6,120	Cornwall	Pool, Cornwall.
S. Frances Untd. T	5/- 10/-	5/- 10/-	*	—	2 7 6	8,000	Cornwall	Redruth.
South Halkyn ...	par	par	1 0	—	1 0 0	10,000	Flintshire	8. Werburgh Chmbrs
South Halkyn ...	par	par	1 0	—	0 7 0	30,000	Flintshire	8. Werburgh Chmbrs
Talacre ...	par	par	1 0	—	0 16 0	20,000	Flintshire	54, Forgate st., Chstr
Tincroft ...T	6¾ 7¼	6¾ 7	*	2/- Aug. '94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale ...L	8/9	8/9	4 0	1/3 Oct. '90	1 10 0	60,000	Durham...	3, Lombard-court.
West Frances ...T	15/- 20/-	15/- 20/-	—	2/6 May, '88	17 1 7	6,144	Cornwall	Camborne.
West Kitty ...T	5¼ 5¾	5¾ 6¼	*	2/- Dec, '94	1 2 0	8,000	Cornwall	37, Walbrook.
Wheal Agar ..TA	2/6 7/6	2/6 7/6	*	2/6 Aug. '88	23 15 2	6,000	Cornwall	Redruth.
Wheal Basset ...TC	30/ 35/	30/ 35/	*	10/- Apr. '88	12 3 0	6,144	Cornwall	Redruth.
Wheal Friendly..T	-/6 1/-	-/6 1/-	*	—	0 12 9	10,000	Cornwall	110, Cannon-st., E.C.
Wheal Grenville T	12 12½	11¾ 12¼	*	2/6 Nov. '94	18 2 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Kitty ...T	2/ 4/	2/- 4/-	*	3/- Mar. '88	4 5 6	8,590	Cornwall	Truro.
Wheal Metal &F. T	—	—	*	—	0 13 9	10,784	Cornwall	14, Broad-street.

AUSTRALIAN AND NEW ZEALAND MINES.

Name.	Closing Price, June 28, 1895	Closing Price, June 21, 1895.	Am't. of Share	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Abbotts ...G	11/3 13/9	11/3 13/9	1 0	—	0 17 6	67,000	M'rchison	17, Old Broad st.
Achilles Gld Fld.	3/3 3/9	3/- 3/6	2/6	—	0 2 6	642,456	N. Zealand	Poultry.
Aladdins Lamp G	1 3/16 1 5/16	18/9 21/3	1 0	-/6 July '95	1 0 0	100.000	N S.Wales	4-6, Throg. Avenue.
Assoc. Gold Mines	12/6 15/-	12/6 15/-	1 0	—	1 0 0	375,000	Coolgardie	20, Bucklersbury
Austin ...G	15/ 20/	17/6 22/6	1 0	—	1 0 0	50,000	Murchison	23, College hill, EC
Australasian ...G	3/3 3/9	3/3 3/9	1 0	-/6 Mar., '92	1 0 0	210,000	Queensland	6, Queen-st. place
Australian ...C	—	—	10 0	1/6 July '94	7 7 6	18,315	S. Austral.	15, Old Jewry Chbrs
Aus. Bro. Hill Con.	2/9 3/3	2/2 3/3	1 0	1/- June, '91	1 0 0	537,138	N.S.Wales	Dashwood House.
Baker's Creek ...G	16/3 18/9	15/- 20/ xd	1 0	1/- May '95	0 17 6	100,000	N.S.Wales	Hillgrove, N.S.Wales
Bayley's Reward G	10/ 11/	9/6 10/6	1 0	-/4 Dec. 94	1 0 0	480,000	Coolgardie	F'sb'y. H. Bl'mf'ld St.
Big Blow ...G	⅝ ¾	9/16 11/16	1 0	—	0 15 0	100,000	Coolgardie	Blomfield Ho., E.C.
Blackett's Claim G	6/3 8/9	6/3 8/9-	1 0	—	1 0 0	60,000	Coolgardie	Winchester House
Bonnie Dundee G	12/ 14/	-/6 1/	1 0	—	1 0 0	80,098	N Zealand	3, Gt. St. Helens'
Brilliant ...G	14/6 15/6xd	14/6 15/6	2 0	-/4 May '95	2 0 0	150,000	Queensland	Charters Towers.
Brilliant Block...G	1⅞ 2	1 13/16 2 1/16	2 0	-/6 July 95	2 0 0	250,000	Queensland	3, Gracechurch-st.
Brilliant, St. Geo.	1⅝ 1¾	1 7/16 1 9/16 xd	0 10	6d. June '95	0 6 3	72,000	Queensland	Charters Towers.
Brit. Brok. Hill S	—	—	1 0	—	1 0 0	—	N.S.Wales	Dashwood Ho., E.C.
Brit. Broken Hill	—	—	0 8	—	0 8 0	—	N.S.Wales	Dashwood Ho., E.C.
Broken Hill Prop.	2 1/16 2 5/16	2 2⅛	0 8	1/- July '95	0 8 0	960,000	N.S.Wales	Dashwood Ho., E.C.
Cashman Bril... G	⅝ ¾	⅝ ¾	1 0	—	1 0 0	60,000	Coolgardie	Winchester House.
Carrington ...G	9/6 10/6	7/- 8/-	12/6	—	0 12 6	100,007	Queensland	9, Tokenhouse Yard.
Con. G. M. of W. A.	17/6 20/-	17/6 20/	1 0	—	0 12 6	90,000	W. Austral	14, Hill st., Edinboro'
Coolgardie ...G	-/9 1/-	-/9 1/-	0 2	—	0 0 6	40,000	Coolgardie	Winchester House.
Coolgardie (Shrlws)	15/ 16/	13/6 14/6 xd	1 0	30% June 95	0 6 0	—	Coolgardie	Broad Street Avenue.
Craven's Cal. ... G	3/6 4/6	3/6 4/6	0 6	-/3 June 94	0 4 8	100,000	Queensland	30-1, S. Swithin's-le.
Crown Bayley's..G	1/16 ⅛ pm	1/16 ⅛ pm	1 0	—	0 10 0	80,000	Coolgardie	Bishopsgate Ho. E.C.
Cumbrind (New) G	3/6 4/	3/ 3/6	1 0	2/6 Dec, '87	0 19 0	184,690	Queensland	Blomfield House E.C
Day Dawn B.&W. G	11/ 12/	10/6 11/6	1 0	-/6 Mar. 93	1 0 0	498,400	Queensland	3-5, Gracechurch-st.
Day Dawn P. C. G	5/ 6/	5/6 6/6	1 0	-/6 Apr, '92	1 0 0	490,000	Queensland	Winchester Ho., E.C
Eaglehawk ...G	-/6 1/	6/- 1/-	1 0	—	0 19 9	120,000	Victoria...	31, Lombard-street.
Empress Coolge. G	¼ ⅛ dis.	¼ ⅛ dis	1 0	—	0 10 0	90,000	Coolgardie	2, Tokenhouse bldgs
Eng. & Aus. Cop. Cu	1/16	1/16	2 0	2% 1883	1 17 6	70,000	S. Austral.	136, Palmerston-blds
Frederick the Gt G	—	—	1 0	—	1 0 0	125,000	Victoria...	St. George's House.
Glenrock ... G	1/3 1/6	1/1½ 1/4½	1 0	—	1 0 0	225,000	N. Zealand	3-5, Queen-st., E.C.
Golconda ...G	17/6 20/	17/6 20/-	1 0	—	1 0 0	68,086	Murchison	Winchester House
Gold Estates ...	1¼ 1⅜	1⅛ 1¼	1 0	—	0 10 0	80,000	W. Austral	42, Gresham House.
Great Boulder ...G	1 11/16 1 13/16	1¾ 1⅞	1 0	—	1 0 0	119,380	Yilgarn ..	3, Gracechurch st.
Great Coolgardie...	5/16 7/16	5/16 7/16	1 0	—	0 15 0	85,000	Coolgardie	3. Budge Row.
Great Fingall Rfs.	1¼ 1⅜	1¼ 1⅜	1 0	—	1 0 0	175,000	Kurnalpi	Broad Street House.
Golden Gate ...G	1/3 1/9	1/6 2/-	0 10	—	0 10 0	150,000	Queensland	9, Tokenhouse Yard.
Hampton Lands...	4⅜ 4⅝	3⅞ 4⅛	1 0	10/- Nov. '94	1 0 0	64,075	Coolgardie	1, Whittington Avue
Hampton Plains...	2⅛ 2⅜	2⅛ 2⅜	1 0	—	0 4 0	350,000	Coolgardie	29, S. Swithin's lane
HamptonPlainsEx	7/ 8/	6/ 7/	1 0	—	0 18 0	180,000		Suffolk House, E.C
Hannan's BrwnHil	16/3 18/9	17/6 22/6	1 0	—	1 0 0	65,000	Coolgardie	Broad Street House
Hauraki ... G	15/ 16/	12/- 13/-	2/6	2/6 July '95	0 2 6	250,000	Coromndl.	Dashwood Ho.; E.C.
Kaboonga ...G	3/6 4/-	2/9 3/3	0 10	—	0 9 9	500,000	Queensland	70-71, Bishopsgate st.
Kangarilla ...S	7/6 8/6	4/ 5/	1 0	—	1 0 0	88,275	So. Austral	68, Coleman-street.
Kapanga ...G	10/ 11/	9/6 10/6	1 0	-/6 Jan. '91	0 19 6	250,000	N. Zealand	9, New Broad-street.
Kilkivan ...G	—	—	1 0	—	1 0 0	81,392	Queensland	4, Coleman-street.
Kinsella ...G	1 1⅛	1 1⅛	1 0	—	1 0 0	80,000	Murchison	33, Broad-st. Avenue
Kurnalpi ...G	11/ 12/	11/ 12/	1 0	—	—	—	Coolgardie	Throgmorton House
Lady Loch ...	⅛ ⅜	5/16 7/16	1 0	—	0 10 0	70,000	Coolgardie	9, Tokenhouse Yard.
Lady Mary Amalg.	1⅛ 1⅜	1¼ 1½	1 0	—	1 0 0	46,000	Murchison	Blomfield House.
Lindsay ...	5/16 1/16 dis.	5/16 1/16 dis	1 0	—	0 10 0	65,000	Coolgardie	Copthall House
Londonderry ...G	13/9 16/3	12/6 15/-	1 0	—	1 0 0	467,000	Coolgardie	3, Gracechurch-st.
L.& W. Aust. Expl.	2 2⅛	1 15/16 2 1/16	1 0	20 p.c. Dec. '94	1 0 0	100,000	W. Austral	Broad Street Ho.
Mainland Cons. G	21/3 23/9	par ⅛ pm	1 0	—	0 15 0	150,000	Murchison	5 Old Broad Street
Mawson's Rewrd. G	15/ 17/6	15/ 17/6	1 0	—	0 10 0	60,000	W. Austral	28 & 29, S Swithin's ln
Mills' Day Dawn G	20/ 22/6	18/9 21/3	1 0	-/6 May '95	0 15 6	300,000	Queensland	3, Gracechurch-st.
Mosman ...G	6/ 6/6	6/ 6/6	1 0	—	1 0 0	53,235	N.S Wales	16, St. Helen's-place.
Mt. Leyshon ...G	—	—	1 0	-/6 Dec. '90	1 0 0	157,989	Queensland	7, Draper's-gardens.
Mount Morgan G	2⅜ 2½ xd	2⅜ 2½ xd	1 0	-/6 June, 95	0 17 6	1,000,000	Queensland	50, Lime-street.
Mount Zeehan SL	-/6 1/-	-/6 1/	1 0	—	1 0 0	193,257	Tasmania	Mansion Ho. Cham.
Murchison Gift ...	3/9 4/3	—	—	—	—	—		
Murchison Gold ...	6/ 7/	—	—	—	—	—		
N. Australian G. F.	19/- 20/-	19/ 20/	1 0	-/6 June, '95	0 19 6	20,000	—	7, Union Court.
New Queen ... G	7/ 7/6	7/- 7/6	1 0	—	1 0 0	158,915	Queensland	30, St. Swithin's-la.
North Coolgardie..	1/3 1/9	1/- 1/6	0 5	—	0 4 0	85,000	Pilbarra ...	226, Winchester Ho.
N. Q'ld. M. Agency	1⅛ 1⅜	1 3/16 1 11/16	1 0	2/6 Jan. '95	1 0 0	90,000	Queensland	10 New Broad Street
Queen's Bthdy Un.	11/ 12/	11/- 12/-	1 0	—	0 12 6	75,000	Victoria...	7-8, Gt. Wnchster St.
Sam's Wtth. of Nat.	2/- 3/-	3/- 4/-	1 0	—	0 18 0	200,000	W. Austral	33, Old Broad Street.
ScottishAustralian	⅝ ¾	⅝ ¾	1 0	-/3 May, '95	1 0 0	200,00	N.S Wales	Winchester Ho. E.C.
Victoria Associatn.	—	—	1 0	-/6 July, '95	1 0 0	144,000	Chr. Tow.	6, Crosby-square
Victory ... G	7/6 8/6	7/ 8/	0 5	-/3 Mar., '94	0 5 0	200,000	Queensland	32, Gresham-st., E.C
Waihi ... G	6¼ 6⅝	6½ 6⅝ xd	1 0	2/- June '95	1 0 0	150,000	N. Zealand	11, Abchurch-ln. E.C
Waratah ... G	7/6 8/6	7/6 8/6	0 10	—	0 10 0	6,000	Crydn, N Z	43, Threadneedle st.
Wentworth Extsn.	2/6 3/6	⅛ ¼	0 5	—	0 6 0	178,828	N.S Wales	19, S. Swithin's Lane
Wentworth ...G	18/9 21/3	18/9 21/3	1 0	—	1 0 0	350,000	N.S Wales	4-6, Throgmort. Av.
W. Argentine ...G	1/- 1/6	1/- 1/6	1 0	—	0 19 6	150,000	N. Zealand	3-5, Queen-street.
W. Aust. G. Concess	1⅛ 1⅜ xd	1⅛ 1⅜	1 0	20% May '95	1 0 0	17,500	W. Austral	33, Old Broad st., EC
W. Aus. Exploring	1 5/16 1 9/16	1⅜ 1⅝	1 0	—	0 15 0	200,000	W Austral	54, Old Broad st., EC
W. Australian G.F.	3⅛ 3⅜	3¼ 3⅜	1 0	2/6 Dec., 94	1 0 0	66,000	Coolgardie	28-29, S. Swithin's-ln.
W. Aust. Mining	3/6 4/6	3/6 4/6	1 0	—	1 0 0	104,297	W. Austral	157, Winchester Ho.
W. Mallina ...G	2/9 3/3	2/9 3/3	0 5	—	0 3 0	80,000	Pilbarra ...	Winchester House.
White Feather ...	1⅜ 1	1⅜ 1	1 0	—	1 0 0	80,000	Coolgardie	28 & 29, S. Swithin's ln
Zapopan ...G	7/ 8/	7/ 8/	1 0	—	1 0 0	25,000	N W Austra	70 Bishopsgate-street
Zeehan Montana S	[illegible]	—	1 0	-/4 May 95	1 0 0	18,000	Tasmania	11, Queen Victoria st
Zeehan Montana S	[illegible]	—	1 0	[illegible] May 95	[illegible]	12,000	Tasmania	11, Queen Victoria st

EUROPEAN MINES.

Name.	Closing Price, June 28, 1895	Closing Price, June 21, 1895.	Am't. of Share £ s.	Latest Dividend.	Called up per Share. £ s. d.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Alamillos ...L	10/ 15/	7/6 17/6	2 0	-/6 April '95	2 0 0	35,000	Spain ...	6, Queen-street-place
Avala ...Q	0 ⅛	0 ⅛	1 0	1/- May '93	1 0 0	51,584	Servia ...	4, Tokenho. Bldgs.
Consett Ore ...	5⅛	5⅛	1 0	5/- July 94	1 0 0	55,200	Spain ...	19, Grey-st., N'castle
English Cr. Spelter	⅛ ⅜	⅛ ⅜	1 0	2½% Aug. '94	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna ...L	17/6 22/6xd	17/6 22/6xd	2 0	1/- April '95	2 0 0	25,000	Spain ...	6, Queen-street-place
Libiola ...C	3¼ 3⅛	3¼ 3½	5 0	4/6 Apr. 95	5 0 0	50,400	Italy ...	Dashwood Ho., E.C.
Linares ...L	4¼ 4½	4¼ 4⅛	3 0	4/6 April '95	3 0 0	14,998	Spain ..	6, Queen-street-place
Mason & Barry...C	2⅛ 2¾	2⅝ 2⅞	5 0	2/- May. '94	5 0 0	185,172	Portugal	87, Cannon-street.
Oscar ...G	—	—	5 0	—	0 4 6	117,240	Norway ...	6A, Austin Friars.
Pestarena ...G	4/6 5/6	4/6 5/6	3 0	—	3 0 0	67,809	Italy ...	6-7, Queen-street-pl.
Pontgibaud ...SL	—	—	20 0	11/8 Dec '94	20 0 0	14,000	Coueron...	6-7, Queen-street-pl.
Rio Tinto ...C	15⅞ 16	16⅜ 16⅝	10 0	4/- May, '95	10 0 0	325,000	Spain ...	30, St. Swithin's-lane
Do. (Mort. Bonds)	101 103	101 103	100 0	5% Apr, '95	100 0 0	£1892,740	Spain ...	30, St. Swithin's-lane
Do. (2nd do.) ...	101 103	101 103	100 0	5% Apr. '95	100 0 0	£1024,860	Spain ...	30, St. Swithin's-lane
Do. (3rd do.) ...	101 103	101 103	100 0	5 p.c. Apr. 95	100 0 0	£517,080	Spain ...	30, St. Swithin's lane
Ripanji ...SQ	2/- 4/-	2/- 4/-	1 0	—	0 19 0	95,000	Servia ...	120, Bishopsgt-st. Wn
Tharsis ...C Sul	4⅛ 4¾	4¾ 5	2 0	4/- May, '95	2 0 0	625,000	Spain ...	Glasgow.
West Prus Pre.pref	—	—	10 0	8% Mar. 95	10 0 0	365	Germany	Walbrook Ho., E.C.
West Prussian Pre.	—	—	10 0	8% Mar. '95	10 0 0	5,450	Germany	Walbrook Ho., E.C.
West Prussian Or.	—	—	10 0	8% Mar. '95	10 0 0	14,050	Germany	Walbrook Ho., E.C.
Wohlfahrt ...L	—	—	1 0	3% Dec. '94	1 0 0	99,634	Prussia ...	17, Victoria-st., S.W.
Wohlfahrt ...	—	—	1 0	3% Dec. '94	0 10 0	9,090	Prussia ...	17, Victoria-st., S.W.

INDIAN AND ASIATIC MINES.

Name.	Closing Price, June 28, 1895	Closing Price, June 21, 1895.	Am't. of Share	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Asia Minor Pref. Sl.	—	—	0 10	—	0 10 0	42,430	Asia Minr	2, Metal Ex Bldgs.
Do. Ord. ...	—	—	0 10	—	0 10 0	59,838	Asia Minr	2, Metal Ex. Bldgs.
Balaghat Mysore G	3/3 3/9	3/9 4/3	1 0	—	0 19 0	159,945	India ...	6-7, Queen-street-pl.
Burma Ruby ...R	18/6 19/6	18/ 19/	1 0	—	0 18 0	298,551	Burmah...	Suffolk House, E C.
Champion Reef...G	4⅝ 4¾	4 11/16 4 13/16	1 0	4/- Apr. '95	1 0 0	200,000	India ...	6-7, Queen-street-pl.
Colar Central ...G	1/6 2/	1/6 2/	1 0	—	1 0 0	200,000	India ...	Dashwood Ho., E.C.
Coromandel ... G	11/ 13/	11/ 13/	1 0	—	0 15 0	95,000	India ...	6-7, Queen-st.-place.
GoldFldsMysore G	23/ 24/	23/- 24/	1 0	1/- July '93	1 0 0	275,000	India ...	6-7, Queen-street pl.
Hyderabad Dec....	8⅛ 8½	8⅝ 8⅞	10 0	—	10 0 0	115,000	Deccan ...	16, St. Helen's-place.
Kempinkote GdFd	1/6 2/	1/6 2/	0 5	—	0 3 6	750,000	India ...	6-7, Queen-st.-place.
Mysore ... G	2⅞ 3 xd	2 15/16 3 1/16	1 0	2/6 June '95	1 0 0	248,354	India ...	6-7, Queen-street pl.
My. Harnhalli ...G	3/ 4/	2/ 3/	1 0	—	0 18 0	100,007	India ...	2, East India Avenue
Mysore Reefs ...G	9/6 10/6	7/ 8/-	1 0	—	1 0 0	160,000	India ...	6-7, Queen-street-pl.
Mysore West (N) G	17/6 20/-	16/3 18/9	1 0	—	0 19 0	127,408	India ...	Dashwood Ho., E.C.
Mysore Wynaad G	17/6 20/-	16/3 18/9	1 0	—	0 19 0	125,000	India ...	Dashwood Ho., E.C.
Nine Reefs ...G	2/6 3/-	2/6 3/-	0 10	—	0 10 0	250,000	India ...	6-7, Queen-street-pl.
Nundydroog ...G	1⅞ 2	1 13/16 1 15/16	1 0	1/6 July. '95	1 0 0	200,000	India ...	6-7, Queen-street-pl.
Ooregum (Df.O.) G	3 1/16 3 5/16	3 1/16 3 5/16	1 0	2/6 Apr. '95	1 0 0	145,000	India ...	6-7, Queen-street-pl.
Do. (10% Pref.).	4 4⅛	4 4¼	1 0	2/6 Apr. 95	1 0 0	107,011	India ...	6-7, Queen-street-pl
Do. (10% Pref.).	3⅜ 3⅝	3⅜ 3⅝	1 0	2/6 Apr. '95	0 5 0	12,989	India ...	6-7, Queen-street-pl.
Pahang Kabang T	1/16 3/16	1/16 3/16	1 0	—	1 0 0	200,000	Malay Pn.	4a, Jeffrey's sq., E.C
Straits Developmt.	13/16 1 15/16	2 2⅛	1 0	—	0 19 0	184,292	Pahang ...	15, Copthall Avenue.
Yerrakonda ...G	2/ 3/	2/ 3/	0 4	—	0 2 6	187,491	Mysore ...	6-7, Queen-street-pl.

NORTH AMERICAN MINES.

Name.	Closing Price, June 28, 1895	Closing Price, June 21, 1895.	Am't. of Share	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Alaska Mexican...G	1⅜ 1⅝	1⅜ 1⅝	$5	7½d. Apr. 95	$5	180,000	Alaska ...	30, St. Swithin's-ln
Alaska Treadwell G	4 4¾	3⅞ 4⅛	$25	1/6 Jan., '95	$25	200,000	Alaska ...	30, St. Swithin's-ln.
Almada and T...S	-/9 1/-	1/3 1/9	2/6	—	0 1 10	351,008	Mexico ...	6, Queen-street-place
American Belle...S	1/3 1/9	1/3 1/9	1 0	-/6 Mar. '91	1 0 0	398,890	Colorado	25A, Old Broad-street
Anglo Mexican ...S	—	—	5 0	3/- Jan. '90	5 0 0	74,850	Mexico ...	23, College Hill.
Arizona (Pref.) Cu	29/9 30/	28/6 29/-	4 0	—	4 0 0	158,920	Arizona ...	74, Geo.-st., Edinbor
Do. 6½ A Deben.	100	103	100 0	6½% May '95	100 0 0	£135,300	Arizona ...	74, Geo.-st., Edinbor
Do. 7% B Deben.	83	82	100 0	7% May '95	100 0 0	£181,300	Arizona ...	74, Geo. st. Edinbor
Big Creek ... Ay.	2/6 3/6	2/6 3/6	1 0	1/- Dec. '91	1 0 0	50,000	Nevada ...	11, Queen Victoria-st.
California ... G	—	—	0 10	-/6 May 90	0 10 0	621,808	Colorado	St. George's Ho E.C.
Colorado Boy...S	—	—	1 0	—	1 0 0	112,492	Colorado	11, Poultry, E.C.
Cortez ...S	—	—	1 0	3% Feb. '93	1 0 0	300,000	Nevada ...	Suffolk House, E.C.
Decatur ...Sl.	—	—	1 0	—	1 0 0	32,500	Colorado	35, Queen Victoria-st.
Do. ... (Pref.)	—	—	1 0	—	1 0 0	12,500	Colorado	35, Queen Victoria-st
De Lamar ...GS	21/ 23/	23/ 25/ xd	1 0	1/- Apr, '95	1 0 0	400,000	Idaho ...	6, Draper's-gardens.
Dickens Custer GS	1/9 2/3	1/6 2/-	1 0	—	0 19 9	420,000	Idaho ...	Winchester Ho. E.C
Elkhorn ...S	6/6 7/6 xd	7/ 8/ xd	1 0	-/3 July '95	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma ...S	-/9 1/3	-/9 1/3	0 5	—	0 5 0	403,618	Utah ...	15, Geo-st, Mansn. Ho
Flagstaff ...S	—	—	1 0	—	0 18 9	240,000	Utah ...	Dashwood Ho., E.C.
Fisk ... G	—	—	1 0	6d May, 94	1 0 0	134,000	Colorado	5, Fenchurch st.
Gen. M'g. Assoc. ...	6⅛ 7	6⅛ 7	5 10	14/- Apr. 95	5 10 0	27,469	C. Breton	Blomfield House
Golden Feather G	15/ 16/	15/ 16/	1 0	—	1 0 0	180,000	California	S. Stephens Cs E.C.
Golden Gate ...G	5/ 6/	5/ 6/	1 0	—	0 19 6	79,600	California	St. Stephens Cs E.C
Golden Leaf ...G	3/9 4/3	2/9 3/3	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Golden Valley...G	1/3	1/3	1 0	—	0 10 0	55,507	Colorado	15, Angel Court.
Harquahala... G	1/6 2/6	2/ 3/	1 0	-/6 Oct., '94	1 0 0	300,000	Arizona ..	6. Draper's Gardens.
Holcomb Valley G	2/6 3/	2/3 2/9	0 5	—	0 5 0	540,000	California	14, Cornhill. E.C.
Idaho ...GS	5/- 5/6	5/- 5/6	0 5	-/2 Dec. 94	0 5 0	143,439	Idaho ...	140, Leadenhall-st.
Jackson Goldfields	1/10½ 2/1½	—	5 0	—	0 5 0	408,635	California	11, Poultry, E.C.
Jay Hawk (New) G	2/3 2/9	2/- 2/6	1 0	-/6 Dec. '92	0 19 3	285,000	Montana	Dashwood House.
La Plata ...S	2/ 2/6	1/9 2/3	0 5	1/3 Oct. '82	0 4 8	405,000	Colorado	11, Poultry, E.C.
La Yesca ...GS	4/6 5/6	4/6 5/6	1 0	—	0 19 0	175,015	Mexico ...	20, Bucklersbury, E.C.
Maid of Erin ...S	—	—	1 0	4c.p sh Sept'94	1 0 0	575,000	Colorado	43, Threadneedle-st.
Mammoth Gold ...	—	—	1 0	—	1 0 0	400,000	Pnal, Ariz.	257, Winchester Ho.
Mesq. d'l Oro (P) G	—	—	5 0	—	5 0 0	10,000	Mexico ...	Dashwood Ho., E.C.
Mesq. d'l Oro (D) G	—	—	5 0	—	5 0 0	10,000	Mexico ..	Dashwood Ho., E.C.
Montana ... GS	14/ 15/	12/6 13/6xd	1 0	-/3 July '95	0 19 0	657,158	Montana	Gresham House, E.C.
New Colorado ...S	—	—	1 0	—	0 17 0	65,000	Colorado	Abchurch Cham. E.C
N. Consolidated SC	—	—	0 5	—	0 3 6	248,576	Nevada ...	15, Angel-court, E.C
N. Gold Hill ...G	1/- 1/6	1/- 1/6	1 0	—	0 19 9	191,045	N Carolina	15, George-st., E.C.
New Guston ...S	10/- 12/6	10/- 12/6	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25A. Old Broad-st.
New Hoover Hill G	-/3 -/6	-/3 -/6	0 10	-/9 Dec. '85	0 10 0	120,000	N Carolina	Langthorne Ho., E.C.
Palmarejo ... GS	2/9 3/3	2/9 3/3	1 0	—	1 0 0	418,888	Mexico ..	4, Copthall-buildin
PinosAltos (Df) GS	5/ 6/	5/ 6/	1 0	/6 Mar.' 90	1 0 0	100,000	Mexico ...	110, Cannon-street.
Do. 15% Cum Pref	—	—	1 0	—	1 0 0	60,000	Mexico ..	110, Cannon street.
Red Mountain ...S	—	—	1 0	—	1 0 0	46,626	Colorado	11, Poultry, E.C.
Richmond ...GSL	15/- 17/6	15/- 17/6	5 0	1/- Nov. '94	5 0 0	54,000	Nevada ...	44, Coleman-street.
Sierra Buttes ...G	9/ 11/ xd	9/ 11/	2 0	-/6 Apr. '95	2 0 0	122,500	California	138, Leadenhall-st.
Do. Plumas Eur. G	13/ 15/ xd	13/ 15/	2 0	-/9 Apr. '95	2 0 0	140,265	California	138, Leadenhall-st.
Springdale ...G	2/6 3/	2/3 2/9	$1	2d Aug., 94	$1	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	1¼ 1⅜	1¼ 1⅜	1 0	3/- Feb. '95	1 0 0	26,000	Colorado	5, Lawrence P. Hl E.C

SOUTH AND CENTRAL AMERICAN MINES.

Name.	Closing Price, June 28, 1895	Closing Price, June 21, 1895.	Am't. of Share	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Anglo-Chilian NtN	9¾ 10	9¾ 10¼	10 0	4/5 Dec. '89	10 0 0	35,000	Antofagst.	123, Bishops.-st. W.
Do. 6% RylstMB	107 110	107 110	100 0	7% May, '95	100 0 0	£200,000	Antofagst.	123, Bishops.st. W.
Antio. (Pref.) G.S.	—	—	1 0	-/6 Mar. '90	1 0 0	22,823	Colombia	184, Gresham Ho.
Antioquia (ordiny)	—	—	1 0	—	1 0 0	42,453	Colombia	184, Gresham Ho.
Caratal ... G	1/- 1/3	1/- 1/3	2/6	—	0 2 6	1,330,003	Venezuela	57, Moorgate-st. E.C
Caylloma ...S	1⅝ 1⅞	1⅝ 1⅞	2 0	1/- Apr. 94	2 0 0	125,000	Peru ...	52, Leadenhall street
Colon ...G	1/- 1/6	1/- 1/6	0 5	—	0 4 0	200,000	Colombia	5, Copthall-bdgs., E.C
Colorado Nit. ...N	1¾ 2¼	1¾ 2¼	5 0	4/- May, '95	5 0 0	32,000	Chili ...	12, King-st., Liverp'l
Colombia ...G	—	—	20 0	10 frs. Aug. 94	20 0 0	—	Venezuela	Ciudad Bolivar.
Colombian Hy...G	11/ 13/	11/ 13/	1 0	1/- Sept. '94	1 0 0	75,000	Colombia	10, Blomfield-street
Copiapo ...C	1⅞ 2⅛ xd	2 2¼ xd	2 0	1/6 May '95	2 0 0	100,000	Chili ...	Dashwood House, E.C
Darien "A" ...G	3¼ 3⅜	3⅛ 3⅜	1 0	—	1 0 0	49,553	Colombia	Manchester.
Don Pedro ...G	6/6 7/6	6/6 7/6	1 0	—	0 18 6	133,102	Brazil ...	24-5, Devonsh.Cs E.C
El Callao ...G	7/6 12/6	7/6 12/6	5 0	9½d Feb. '94	5 0 0	857,600	Venezuela	6, Bishopsgt.-st. Wn
Frontino & B. ...G	1⅛ 1¼	1⅛ 1¼	1 0	1/- Mar. '95	1 0 0	128,662	Colomb'a	184, Gresham House
Glenrock ...G	1/3 1/6	1/1½ 1/4½	1 0	—	1 0 0	150,000	Arg. (&I.)	3-5, Queen-street, E.C
Gravel ...G	4/- 6/-	4/6 5/6	1 0	—	0 18 6	100,000	Colombia	10, Blomfield-street
Guadalupe ...GS	3/6 6/-	3/6 5/	1 0	—	1 0 0	180,000	Honduras	[illegible]

"THE MINING JOURNAL" SHARE LIST—(Continued)

SOUTH AND CENTRAL AMERICAN MINES—(*Continued*).

Name.	Closing Price, June 28, 1895	Closing Price June 21, 1895.	Am't. of Share	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d			
Huanchaca ....S	—	—	5 0	4/- Sept. '94	5 0 0	320,000	Bolivia ..	10, Avnu. d'Alma, Paris
Javali ....G	—	—	0 2	8½ % '91	0 2 0	105,234	Nicaragua	139, Cannon-street.
Julia Taltal ......N	⅜ ½	⅜ ⅜	1 0	—	1 0 0	200,000	Chili	79½, Gracechurch-st.
Lagunas ....N	5⅝ 5⅞	5¾ 6¼	5 0	15p.c. Dec.'94	5 0 0	120,000	Tarapaca	3, Gracechurch st.
Lautaro ....N	7¼ 8 xd	8 8⅛	5 0	7/6 June 95	5 0 0	110,000	Chili	70, Gracechurch st.
Liverpool ....N	10⅛ 11⅛	10⅛ 11⅛	5	15/-May, 95	5 0 0	22,000	Chili	Liverpool.
Loma ....G	1/3 1/9	1/3 1/9	1 0	—	1 0 0	300,000	Colombia	5, Copthall-building.
London Nit. ......N	1½ 2	1½ 2	3 0	3/4¾ Nov. '89	5 0 0	10,000	Chili	9, Gracechurch-st
London Nit. (Pref.)	3½ 4	3½ 4	5 0	8% Nov. '9	5 0 0	22,000	Chili	9, Gracechurch-st
Macate	1/9 2/3	1/9 2/3	0 2	—	0 2 0	200,000	Peru	11, Old Broad-st, E.C
New Tamarugal N	⅛ ⅜	—	1 10	1s. Dec. '94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
Do. 8 % Cum Pref	9/16 11/16	—	1 10	8 p.c. Feb. '95	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
Do. 6 p.c. Debs ...	89 92	88 92	100 0	6 p.c. Feb. '95	100 0 0	£260,000	Tarapaca	50, Lime-street, E.C
Orita ....G	1/9 2/3	1/6 2/	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Blomfield-street.
Ouro Preto ......G	—	—	1 0	—	1 0 0	80,000	Brazil	6, Queen-street-place
Pac. & Jazpampa N	3⅛ 3⅜	3⅛ 3⅜	5 0	4/- May, '95	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Primitiva ....N	1½ 2	1½ 2	5 0	20% Oct. '89	5 0 0	40,000	Chili	Liverpool.
Quebrada C	3/ 5/	3/ 5/	3 0	5% Mar. '92	3 0 0	241,956	Venezuela	38, Nicholas Lane.
Quebrada C	—	—	8 k.	6% Feb., 94	100 0 0	£400,000	Venezuela	38, Nicholas Lane.
Rosario ....N	5 5⅛	5 5⅛	5 0	12/6 May '95	5 0 0	120,000	Chili	57½, Old Broad-street
Rosario (5% Deb.	103 106	103 105	100 0	5% April '95	100 0 0	£475,000	Chili	57½, Old Broad-street
Do. Huara Deb Scrp	105 107	105 107	100 0		100 0 0	£200,000	Chili	57½, Old Broad-street
St. John del Rey G	1 1/16 1 3/16	1 1/16 1 3/16	1 0	10% June '82	1 0 0	323,090	Brazil	Finsby. Ho., Blmf'd st
San Donato ......N	2 2⅛	2 2⅛	5 0	2/6 May, '95	5 0 0	32,000	Chili	12, King-st., Liverp
San Jorge ....N	5⅛ 5⅜	5¼ 5½	5 0	12/6 May '95	5 0 0	75,000	Chili	9, Gracechurch-st.
San Pablo ....N	2 2½	2 2½	5 0	2½% Nov., '94	5 0 0	32,000	Chili	Gracechurch-st
Santa Barbara ...G	—	—	0 10	1/3 Dec. '86	0 10 0	60,000	Brazil	Liverpool
Santa Elena ......N	⅜ ⅜	⅜ ⅜	5 0	5/- Oct. '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
Santa Rita ......N	2¾ 3¼	3 3½	5 0	10/- May, '95	5 0 0	20,000	Chili	Dashwood House, E.C
San Sebastian ...N	1¾ 2¼	2 2½	5 0	5/ May, '95	5 0 0	29,000	Chili	Dashwood House, E.C
Segovia ....G	—	—	5/-	—	0 5 0	120,000	Colombia	5, Copthall-buildings
Sucre Pref. ....G	—	—	1 0	10% Dec. '94	0 15 0	840	Colombia	23, St. Swithin's ln.
Sucre Ord. ....G	—	—	1 0	6% Dec. '94	1 0 0	10,000	Colombia	23, St. Swithin's ln.
Tolima "A" ......S	7½ 8	7½ 8	5 0	10/- Apr., '95	5 0 0	14,000	Colombia	18, Finsbury-circus.
Do. "B" ......S	6½ 7	6½ 7	5 0	10/- Dec., '94	5 0 0	6,000	Colombia	18, Finsbury-circus.
Vic. & Altamira ...	2/3 2/9	2/3 2/9	0 5	—	0 5 0	200,000	Venezuela	Broad-st. Avenue.
Do. Pref.	2/9 3/3	2/6 3/-						
West Indian ......G	—	—	0 1	—	0 1 0	1,725,585	Singo.Dm	110, Cannon-street.

AFRICAN MINES.

Name.	Closing Price, June 28, 1895	Closing Price June 21, 1895.	Am't. of Share	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Abercorn Reef ...G	-/9 1/3	/6 1/	0 5	—	0 4 0	—	Millwood	16, Tokenhouse Yard
African Alluvial ...	1⅛ 1⅜	1¼ 1⅜	1 0	—	1 0 0	130,000	Mozambiq	11, Poultry.
African Alluvial ...	10/ 12/	11/ 12/	1 0	—	0 3 6	20,000	Mozambiq	11, Poultry.
African Coal	6/6 7/-	6/6 7/6	1 0	—	0 16 6	300,000	Middlebrg	19, St. Swithin's-lane
African Gold Con.	2/6 3/	2/6 3/	0 10	20 p.c. Jan.'95	0 8 0	300,000	Mossel By	16, Tokenhouse-yard
African Gold Ryco.	1⅜ 1½	1⅜ 1½	1 0	2/- Oct. 94	1 0 0	175,000	—	23, College Hill.
Afrikander ......G	1⅝ 1⅞	1⅝ 1⅞	1 0	—	1 0 0	40,000	Transvaal.	19, St. Swithin's-lane
Agnes Block ......G	10/ 12/6	10/ 12/6	1 0	—	1 0 0	78,507	Transvaal.	54, Old Broad-street.
Alexandra Estate G	10/6 11/6	9/6 10/6	1 0	—	1 0 0	225,000	Rand	Warnford Court, EC.
Anglo-French Exp.	3⅛ 3⅜	3 5/16 3 9/16	5 0	10% Dec. 94	5 0 0	30,300	S. Africa	170, Winchester Ho.
Appantoo ....G	—	—	1 0	—	1 0 0	77,885	West Cost	Dashwood House.
Aurora ....G	28/ 30/	24/ 26/	1 0	5% Mar, '93	1 0 0	65,000	Rand	8, Old Jewry.‡
Do West United.	2⅜ 2⅞	—	—		—	—	—	
Balkis Eersteling G	3/6 4/-	3/- 3/6	0 10	—	0 10 0	520,000	Transvaal.	85, Gracechurch-st.
Balkis Land	5/9 6/3	4/6 5/-	0 10	—	0 10 0	520,000	Transvaal.	85, Gracechurch-st.
Banket ....G	10/ 11/	6/ 7/	1 0	—	1 0 0	200,000	Rand	Johannesburg.
Bantjes Reef ......G	3⅜ 3¾	3¼ 3⅜	1 0	—	1 0 0	83,000	Rand	Warnford-court.†‡
Barrett ....G	13/6 14/6	12/ 13/	0 10	—	0 9 0	207,496	De Kaap	17, Basinghall-street
Bechuanaland Exp.	2 7/16 2 9/16	2⅜ 2⅝	1 0	1/- Mar. 95	1 0 0	200,000	Bechuana.	19, St. Swithin's-lane.
Bech. Trad'g Assoc.	1⅜ 1½xd	1⅜ 1½ xd	1 0	10 p c May, 95	1 0 0	100,000	Bechuana.	19, St. Swithin's-lane.
Big Golden Quarry	2/ 2/6	1/6 2/	5/-	—	0 5 0	483,226	Kaap Rivr	4, Bishpsgte. st. Wn.
Block "B" Lang.	24/ 25/	23/ 24/	1 0	—	1 0 0	535,000	Rand	8, Princes-st, E.C.!
Boovsen Land ...G	3⅜ 3⅞	3⅜ 3⅝	1 0	—	0 12 0	95,000	Transvaal.	4, Tokenhouse-blds
Brit. S. A. Char. ...	4 5/16 4 7/16	4⅜ 4⅜	1 0	—	1 0 0	2,000,000	S. Africa	19, St. Swithin's-lane
Buffelsdoorn ......G	6⅛ 6¾	4⅞ 5⅛	1 0	—	1 0 0	250,000	Potchefstr	7, Lothbury.
Buluwayo Synd. ...	1¾ 2	1¾ 2	1 0	—	1 0 0	12,000	Matabele.	10, Helen's Place.
Cape Asbestos	2 2⅜	2 2⅜	1 0	—	1 0 0	60,311	Orange Rv	19, St. Swithin's-lane
Cape Copper C	1⅞ 2⅛ xd	1⅞ 2⅛ xd	2 0	1/3 June, '95	2 0 0	300,000	Cape Col.	9, Queen-street-place.
Do. 6 % Pref. ...	1⅞ 2⅛ xd	1⅞ 2⅛ xd	2 0	1/3 June, '95	2 0 0	45,000	Cape Col.	9 Queen-street-place
Cassel Colliery	4⅜ 4⅝ xd	4⅜ 4⅝ xd	1 0	10pc July '95	1 0 0	75,000	Johanbrg.	99, Cannon-street.
Cen. Montrose ... G	3/- 4/-	3/- 4/	1 0	—	0 18 6	69,000	Transvaal	15, George st Mn.Ho.
Champ d'Or ...... G	3⅞ 4⅛	4 4¼	1 0	4/- Jan. 95	1 0 0	116,018	Rand	8, Old Jewry, E.C.
Champ d'Or Deep G	2¼ 2⅜	2¼ 2⅜	1 0	—	1 0 0	117,499	Rand	8, Old Jewry, E.C.
City and Suburb. G	26⅛ 27	26⅜ 26⅞	1 0	25% Mar. '95	1 0 0	75,000	Rand	96, Gresham Ho., E.C
Coetzeestroom ...G	10/ 11/	7/ 8/-	0 5	—	0 5 0	140,000	De Kaap	105, Leadenhall-street
Con. Bultfontein D	28/6 29/6	28/6 29/6	1 0	3¾% Sept. '94	1 0 0	721,500	Griqualnd	62, Lombard-st.
Con. Deep Levels G	5⅜ 6	5⅛ 5¾	1 0	20% June 95	1 0 0	187,250	Transvaal	30, St. Swithin's-lane
Con. G. Fields S A.	10⅛ 10⅛	10⅛ 10⅜	1 0	5/- May '95	1 0 0	1,250,000	S. Africa	8, Old Jewry.
Do. 6 % Pref.	23/6 24/6 xd	23/6 24/6	5 0	7 1-5d June'95	1 0 0	1,243,999	S. Africa	8, Old Jewry.
Do. 5½% Deben...	112 113	112½ 113½	1 0	5½ Jan, '95	5 0 0	600,000	S. Africa	8, Old Jewry.
Crown Reef ......G	10⅛ 10⅜	10⅛ 10⅜	1 0	25% June'95	1 0 0	120,000	Rand	120, Bishopsgt st Wn‡
De Beers Consol. D	21⅞ 22⅛	21¾ 22	5 0	12/6 Jan. '95	5 0 0	789,791	Transvaal.	62, Lombard-street.
Do. 5% 1st Deb....	109⅛ 110⅛	109⅛ 110⅛	—	5% Jan. '95	—	£3,500000	Transvaal.	62, Lombard-street.
Do. 5½% Bul. Ob.	105 106	105 106	—	5½% Apr. 95	—	720,000	Transvaal.	62, Lombard-street.
Durban Roodept. G	7⅛ 7⅜	7 7⅜	1 0	3/- July, '95	1 0 0	£125,000	Rand	25, Leadenhall-bldgs
Eastleigh ....G	1⅜ 1⅞	1 11/16 1 13/16	1 0	—	1 0 0	240,000	Klerksdrp	Winchester House.
East Rand ....G	5⅜ 5⅛	4⅜ 5	1 0	—	1 0 0	570,000	Rand	170, Winchester-ho.
Evelyn ....G	1 1⅛	1 1⅛	1 0	10% Jan. '89	1 0 0	66,000	Rand	28, Old Jewry, E.C.
Exploration	1⅜ 1½p.m.	1⅝ 1⅞pm	1 0	1/- Dec. '94	0 4 0	148,000	S. Africa	30, S. Swithin's-ln.‡
Exploring Co.	6¼ 6⅜	6⅜ 6⅝	1 0	25/- Feb. '94	1 0 0	69,350	S. Africa	19, S. Swithin's-ln.
Ferreira ....G	17¼ 17¾	17¼ 17¾	1 0	65% June '95	1 0 0	45,000	Rand	120, Bishopsgt st. Wn‡
Forbes Reef (Nw) G	10/ 12/6	12/6 15/	1 0	—	1 0 0	105,000	De Kaap	45-6, Leadenhall-st.
Geldenhuis Deep G	9⅛ 9¾	9⅛ 9⅝	1 0	—	1 0 0	265,000	Transvaal.	30, St. Swithin's-lane.
Geldenhuis Est. G	6⅞ 7	6⅞ 6¾	1 0	30% July'95	1 0 0	187,500	Rand	120, Bishopsgt st. Wn‡
Do. Main Reef	20/ 22/	19/ 21/xd	1 0	5% Apr., 95	1 0 0	150,000	Rand	Warnford Court, E.C
George and May G	1⅞ 2	1 13/16 1 15/16	1 0	—	1 0 0	112,750	Rand	7, Great St. Helen's.
George Goch ...G	3 5/16 3 9/16	3 5/16 3 9/16	1 0	—	1 0 0	100,000	Rand	Johannesburg.
Ginsberg	1⅞ 2	1⅞ 2	1 0	—	1 0 0	130,000	Drietfon.	Warnford Court, E.C‡
Glencairn ....G	4⅜ 4⅝	4 4⅜	1 0	15 pc June 95	1 0 0	200,000	Rand	2, Drapers-gardens.
Gold Coast Devel.	6/6 7/6	6/6 7/6	—	—	—	—	—	11, Queen Victoria-st
Gold Estates T. ...G	12/- 13/-	12/- 13/-	1 0	15% Dec.'89	0 10 0	130,000	Transvaal	46, Queen Victoria-st
Gld. Fis. Deep ...G	7⅛ 7⅜	7⅛ 7⅜	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G. F. of Mashonld.	11/3 13/9	11/3 13/9	1 0	—	1 0 0	200,000	Mashonld	19, St. Swithin's ln.
G.F. Tierrad' Fuego	3/9 4/3	3/9 4/3	0 4	—	0 4 0	400,000	Mozambiq	2, Tokenhouse Bldgs
Grahamstown ...G	17/- 18/-	17/- 18/-	1 0	—	1 0 0	150,000	Rand	14, Throgmorton-st.
Graskop ....G	8/ 8/6	6/- 6/6	0 5	1½% Mar. '91	0 5 0	400,000	Lydenburg	85, Gracechurch-st.
Griqualand W ....D	7⅝ 7⅞	7⅝ 7⅞	0 0	2% Sept. '94		105,700	Transvaal	62, Lombard-street
Guy Fawkes ......G	11/6 12/6	11/6 12/6	0 10	—	10 0 0		—	
Gwelo Exploratn.	5/6 6/6	4/- 5/-	10 10	—	0 8 0	24,000	Manica.....	Broad-st. Avenue
Harmony (Pref) G	3/- 4/-	3/- 4/-	1 0	—	1 0 0	260,000	—	79½, Gracechurch-st.
Henderson's Trans	3 13/16 3 15/16	3⅛ 3⅜	1 0	—	1 0 0	2[illegible]0,000	Zoutpanb.	85, Gracechurch st.
Henry Nourse ...G	6⅝ 6⅞	6⅝ 6⅞	1 0	—	1 0 0	100,000	De Kaap ..	Warnford-court.
Joe's Reef ....G	6/3 8/9	5/ 7/6	1 0	—	1 0 0	57,404	De Kaap .	21, Mincing Lane.
Johannesburg G.F	6/ 7/	6/6 7/6	1 0	—	1 0 0	99,537	Johanburg	31, Lombard st., E.C
Johannes. Invest.	4¼ 4⅜	4 4⅜	1 0	10 p c Dec. 94	1 0 0	650,[illegible]00	—	7, Lothbury.
Johannesburg Pnr	5⅜ 5⅝	5¼ 5⅝	1 0	12½% Nov., '94	1 0 0	2[illegible],000	Rand........	Johannesburg.
Jubilee ....G	10⅜ 10⅝	10¼ 10½	1 0	30% July '95	1 0 0	30,000	Rand........	8, Old Jewry.†
Jumpers ....G	6 6¼	5⅞ 6⅛	1 0	25% Dec. '94	1 0 0	100,000	Rand........	120, Bishopsgt st, Wn‡

AFRICAN MINES—(*Continued*).

Name.	Closing Price, June 28, 1895	Closing Price, June 21, 1895.	Am't. of Share	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Kimberley ....D	⅛ ⅜ pm	1/16 3/16 pm	1 0	—	0 10 0	98,672	Kimberley	19, Finsbury circus.
Kimberley Rdpt....	4 4¼	3½ 4	1 0	—	1 0 0	125,000	Kimberley	2, Drapers-gardens.
Klerksdorp	24/ 25/	18/6 19/6	0 10	—	9 8 0	400,000	—	110, Cannon St.
Koffyfontein ......D	18/9 21/3	20/ 22/6	1 0	—	1 0 0	125,000	Jacobsdaal	120, Bishopsgt st. Wn
Langlaagte Est. G	5⅜ 5⅞	5⅜ 5⅝	1 0	15 p.c. June'95	1 0 0	470,000	Rand........	59, Holborn Viaduct
Do. Royal	3⅞ 4	3 11/16 3 13/16	1 0	5% Sept. '93	1 0 0	100,000	Rand...	2, Drapers-gardens.
Lionsdale	7/ 8/	7/ 8/	1 0	—	1 0 0	115,000	Lydenburg	85, Gracechurch-st.
Lisbon-Berlyn ...G	8/9 9/3	7/3 7/9	2/6	—	0 2 6	881,233	Lydenburg	110, Cannon-street
London & S. A. Ex.	12¼ 12¾	11¾ 1[illegible]¼	0 10	3/- Mar. '95	0 10 0	100,000	S. Africa ...	19, Finsbury-circus.
Lower Roodepoort	7/- 8/-	6/ 7/	1 0	—	1 0 0	150,000	Vlakfontn	8, Old Jewry, E.C.
Luipaards Vlei Est	17/6 20/-	18/- 19/-	1 0	6% Mar, '90	1 0 0	319,003	Rand..... ...	Warnford-court.‡
Main Reef (New) G	1⅛ 1⅜	1⅜ 1½	1 0	—	0 10 0	300,000	Rand........	8, Old Jewry.
Mashon. Agency...	2⅝ 2¾	2 11/16 2 13/16	1 0	—	1 0 0	100,000	Mashonald	8, Old Jewry, E.C.
Massi Kessi	9/- 10/	9/ 10/	0 10	—	1 0 0	60,000	Manica.....	Broad Street Avenue
May Con. (New) G	3⅜ 3½	3¼ 3⅜	1 0	10 p c Apr. 95	1 0 0	430,000	Rand........	4, Lothbury.‡
Metropolitan (N) G	2⅛ 2⅝	2 7/16 2 9/16	1 0	—	1 0 0	75,020	Rand........	1, Crosby Square.‡
Meyer & Charl....G	7⅞ 8⅛	7⅜ 7⅝	1 0	25% June, '95	1 0 0	71,687	Rand........	Warnford-court.‡
Modderfontein.. G	15¾ 16¼	16 16½	1 0	—	1 0 0	200,000	Rand......	Warnford-court.‡
Montrose........ G	¾ 1	¾ 1	1 0	3/- Feb. '90	1 0 0	70,000	De Kaap'...	65, New Broad-street
Moodies G.&E....G	22/6 25/-	17/6 20/-	1 0	-/4 May '90	1 0 0	240,000	De Kaap .	8, Old Jewry.‡
Mozambique........	30/- 32/6	30/ 32/6	1 0	—	1 0 0	400,000	S E. Africa	Broad-street House.
Namaqua C	1 1¼	1 1¼	2 0	2/6 July '91	2 0 0	91,351	Namaqualnd	34, Leadenhall-blds.
New African	5⅞ 6⅛	5⅞ 6⅛	1 0	—	1 0 0	190,000	—	83, Hatton Garden.
New Ariston........	1⅝ 1⅞	1⅝ 1⅞	1 0	—	1 0 0	2[illegible],180	Klerksdorp	Winchester House.
New Aurora West G	—	—	1 0	5% Mar., '93	1 0 0	30,000	Rand........	1, Crosby Square
N. Belgium Land...	5/- 7/-	5/ 7/	1 0	—	0 17 0	167,462	Waterberg.	33, Cornhill.
New Chimes...... G	3¼ 3½	3⅛ 3⅜	1 0	2/- Feb., '95	1 0 0	100,000	Rand........	8, Old Jewry, E.C
New Clewer Estate	2 1/16 2 3/16	1 9/16 1 11/16	1 0	10% Feb. '95	1 0 0	100,000	Lydenburg	120, Bishopsgt st. Wn
New Crœsus...... G	3 3¼	2⅛ 2⅜	1 0	5% Aug. '92	1 0 0	255,000	Langlaagte	120, Bishopsgt. st. Wn
New Gordon......D	6/- 7/-	6/ 7/	1 0	5% Dec. '89	1 0 0	404,344	Griqualand	110, Cannon-street.
New Heriot ......G	11⅛ 12	11⅛ 12	1 0	50 p c July 95	1 0 0	88,750	Rand........	96, Gresham Ho EC
New Jagersf. ...D	9 9¼	9⅛ 9⅜	5 0	10⅜ Mar., '95	5 0 0	100,000	Transvaal	5, Copthall-buildings
N. Kleinfontein G	5⅛ 5¾	5⅛ 5⅜	1 0	12½pc Mar, '95	1 0 0	82,500	Rand........	Winchester House.
New Louis D'Or.. G	3/- 3/3	3/ 3/5	1 0	—	1 0 0	—	Rand........	53, New Broad-street
New Primrose ...G	7⅛ 7⅜	6⅞ 7⅛	1 0	25pc. June'95	1 0 0	278,750	Rand........	2, Draper's-gardens.
New Rand............	par ⅛ pm	par ⅛ pm	1 0	—	1 0 0	110,000	Rand........	Bartholomew-house
New Rietfontein G	4 4¼	3¾ 4	1 0	—	1 0 0	160,000	Rand........	Warnford-ct., E.O.
New S. Augustine D	11/ 11/6	9/6 10/	1 0	—	0 19 6	299,137	Griqu'ld W	30-1, St. Swithin's-ln
New Spes Bona...G	3⅛ 3⅜	2⅞ 3⅛	1 0	—	1 0 0	113,701	Rand........	24, N. John-st., L'pl.
New Steyn Estate	1 11/16 1 13/16	1 11/16 1 13/16	1 0	—	1 0 0	125,000	Heidelberg	19, Bury Street. E.C
New Virginia ...G	-/9 1/3	1/ 1/6	0 10	—	0 10 0	48,335	Transvaal	26, Budge-row, E.C.
Nigel ....G	7 7¼	7⅛ 7⅜	1 0	10% June '95	1 0 0	160,000	Rand........	96, Gresham Ho., EC
Nigel Deep ......G	3⅝ 3⅜	2¾ 3	1 0	—	1 0 0	195,000	Heidelberg	8, Old Jewry.
Nigel Extension ...	7/9 8/3	7/- 8/-	10/-	10% June '95	0 10 0	160,000	Rand........	Basing House, E.C.
North Sheba	4/9 5/3	4/9 5/3	—	—	—			88, London Wall.
Nourse Deep.........	5¼ 5⅛	5¼ 5½	1 0	—	1 0 0	375,000	Rand.........	120, Bishopgt.-st., Wn.
Oceana	2 9/16 2 11/16	2 7/16 2 9/16	1 0	25/- Nov. '89	1 0 0	326,000	Transvaal .	4, Sun Court, E C
Oceana Develpmnt	1⅜ 1⅝	1⅛ 1⅜	1 0	—	1 0 0	50,000	Transvaal .	4, Sun Court, E.C
Ophir Concess. ...	3/6 4/6	3/6 4/6	0	—	0 18 6	111,857	E. C. Africa	31, Lombard-street.
Orange F.S.E. ...D	4⅛ 5	4½ 5	1 0	12½% May 95	1 0 0	284,000	Orange F.S.	10, Moorgate-street.
Orion ....G	4 4¼	3 7/16 3 9/16	1 0	10% Mar. '95	1 0 0	30,000	Rand........	8, Old Jewry.
Otto's Kopje......D	5/- 5/6	4/ 4/6	1 0	—	1 0 0	437,888	Kimberley	110, Cannon-st., E.C
Paarl Central ... G	26/ 28/	23/ 25/	1 0	—	1 0 0	138,750	Transvaal .	120, Bishopsgt st. Wn.
Pardy's Mozambq.	2⅛ 3	2⅜ 2⅞	0 10	1/- Jan. 95	0 10 0	13,000	S.E. Africa	Broad St. Avenue.
Pardy's Range	10/6 11/6	10/6 11/6	0 10	—	0 10 0	—	Manica......	Broad St. Avenue.
Piggs Peak ...... G	17/6 20/-	13/9 16/3	1 0	—	0 17 6	200,000	Swazieland .	6, Queen-street-place
Piggs Peak ...... G	—	—	1 0	—	0 17 6	60,652	Swazieland .	6, Queen-street-place
Pleiades............	1 11/16 1 13/16	1⅜ 1⅝	1 0	—	1 0 0	140,000	Black Reef	
Potchefstroom... G	2 5/16 2 7/16	28/ 30/	1 0	—	1 0 0	389,750	Potchefstm	19, Bury-st., E.C.
President Land ...	7/- 8/-	7/- 8/-	1 0	—	1 0 0	193,325	Transvaal .	17, Basinghall Street
Princess Estate G	3 1/16 3 3/16	3 3¼	1 0	—	1 0 0	125,000	Rand........	33, Cornhill, E.C.
Randfontein ......G	45/6 46/6	45/ 45/	1 0	—	1 0 0	2,000,000	Rand........	59, Holborn Viaduct.‡
Rand Mines ...... G	32 32½	30¾ 31¼	1 0	—	1 0 0	332,798	Rand........	120, Bishopsgt st. Wn‡
Rand-Rhodesia ...	3⅛ 2⅛	1¾ 2	1 0	—	1 0 0	25,000	R&Rhodesa	123, Bishopsgt-st Wn
Read's Drift ......D	1⅜ 1½	1½ 1¾	1 0	—	1 0 0	37,000	Transvaal .	19, Finsbury circus.
Rhodesia Expln. ...	9 9½	9 9½	1 0	—	1 0 0	50,000	Mt & Mash'l	8, Old Jewry.
Robinson ....G	9⅛ 9⅜	9¼ 9½	5 0	6 p c July '95	5 0 0	550,000	M. Rf.'rand	28, Austin Friars, E.O
Roodepoort Deep	4⅜ 4⅝	4⅛ 4⅜	1 0	—	1 0 0	170,000	Rand........	8, Old Jewry, E.C.
Roodepoort (Kim.)	4 4¼	3¾ 4	1 0	—	1 0 0	100,000	Rand........	7, Lothbury, E.C.
Roodepoort Un. G	6⅛ 6⅜	6¼ 6⅛	1 0	22½ June, '95	1 0 0	130,000	Rand........	Warnford-court.‡
Rose Deep............	5⅛ 5⅜	5⅜ 5⅝	1 0	—	1 0 0	300,000	M. Rf.'rand	30-31, S. Switn's. lane
Rosenblock Tw'Rfs	⅞ 1	⅞ 1	1 0	—	1 0 0	60,000	Krugersdp	4, Tokenhouse bldgs.
Rothery Block......	15/16 1 1/16	—	—	—	—	—		
Salisbury Gold ...	4⅞ 5⅛	4⅞ 5⅛	1 0	—	1 0 0	92,000	Rand........	96, Gresham Ho., EC
Sheba ....G	2 2⅛	1 13/16 1 15/16	1 0	1/- Sept. '94	1 0 0	850,000	Lydenburg	18, S. Helen's place.
Sliati ....G	6/- 8/-	6/- 8/-	1 0	—	0 18 6	119,000	Zoutpan'bg	4, Sun Court, E.C.
Simmer & Jack...G	16⅛ 16⅞	16⅜ 15⅝	1 0	10% Feb. '95	1 0 0	250,000	Rand......	8, Old Jewry.
S. A. Gold Trust ...	8 8⅛	7⅞ 8	1 0	50% June '95	1 0 0	250,000	S. Africa ...	8, Old Jewry.
Southern Geldnus.	5/6 6/6	5/6 6/6	1 0	—	1 0 0	120,000	Elandsfont	6, Great St. Helen's
Southern Land......	10/ 12/6	10/- 12/6	1 0	—	0 15 0	80,000	Griqld.W & B.Bech	19, St. Swithin's-ln.
South West Rand	1 1/16 1 3/16	1 1/16 1 3/16	1 0	—	1 0 0	158,000	Rand	Winchester House.
Spitzkop (New) G	1⅜ 1½	1⅜ ⅛	1 0	—	1 0 0	99,070	Lydenburg	15, Bishopsgt-st, Wt.
Stanhope ....G	1¾ 2	1⅞ 2	1 0	10p.c. June, '95	1 0 0	34,000	Rand...	96, Gresham Ho., EO
Sutherland R. ...G	6/6 7/6	5/5 6/6	1 0	—	1 0 0	220,000	Zoutpan'bg	Dashwood Ho.
Thistle Reef ...... G	3/3 3/9	3/3 3/9	0 5	—	0 5 0	547,976	Barberton .	Copthall House
Trans. Coal Trust...	1¾ 1⅞	1⅝ 1¾	1 0	1/- Mar. '95	1 0 0	439,965	Rand...	Broad-st, House, E.O
Trans. Est. & Dev.	20/ 22/6	16/3 18/9	1 0	—	1 0 0	285,700	Transvaal .	76, Old Broad-st. E.C.
Trans. Gen. Assoc.	2⅜ 2⅝	2⅜ 2⅝	1 0	10% Mar. 95	1 0 0	210,000		30, S. Swithn's lane.
Trans. Gold Exp. G	6⅜ 6⅞	5⅛ 5⅜	1 0	1/- Mar. '95	1 0 0	260,000	Transvaal .	Suffolk House, E.C
Trans. Gold Fields	3¾ 4⅛	3 3¼	1 0	—	1 0 0	135,000	S. A. R......	120, Bishopsgt.-st. Wn
Trans. Land........	10/ 12/	10/ 12/	1 0	—	1 0 0	79,915	Transvaal .	33, Cornhill.
Trans. Land........	5/ 7/-	5/- 7/-	1 0	—	0 15 0	169,999	Transvaal .	33, Cornhill.
Treasury............G	4 4¼	4 4¼	1 0	12½% Sep.'94	1 0 0	60,000	Rand........	Warnford Court.
U. G. F. of Manica	8/6 9/6	8/6 9/6	1 0	—	1 0 0	100,492	Manica......	Broad Street House.
Un. Ivy Reef......G	1 1⅛	18/9 21/3	1 0	2½ Jan. '94	1 0 0	45,000	Transvaal .	110, Cannon-street
U. Langlaagte (N) G	3⅛ 3⅜	2⅞ 3⅛	1 0	—	1 0 0	146,000	Rand........	85, Gresham Ho., E.C
United Matabele ..	⅞ 1	⅞ 1	1 0	—	1 0 0	75,000	Africa	19, S. Swithin's lane.
United Pioneer......	1⅛ 1¼	1⅛ 1¼	1 0	—	1 0 0	75,000	De Kaap ...	16, S. Helen's-pl. E.C.
Van Ryn .... G	9 9¼	8⅞ 9⅛	1 0	—	1 0 0	160,000	Rand........	18, St. Swithin's-ln.
Village Main Reef	7 7⅜	7¼ 7⅜	1 0	—	1 0 0	177,000	Rand........	8, Old Jewry.
Wassau ....G	—	—	1 0	—	1 0 0	130,000	Gold Coast	147, Cannon-street.
Wemmer ....G	11⅜ 11⅞	11⅜ 11⅝	1 0	100% July '95	1 0 0	55,000	Rand......	19, Bury-street.‡†
West Rand...... G	2⅜ 2⅞	2⅜ 2⅝	1 0	—	1 0 0	240,000	Rand......	8, Old Jewry.
Willoughby's Con	1⅜ 1½	1¼ 1⅜	1 0	—	1 0 0	700,000	Mashonald	3, Copthall-bldgs.
Witwatersrand G	9⅛ 9⅜	8¼ 8⅜	1 0	—	1 0 0	250,000	Rand........	19, Bury-st., E.C.
Wolhuter ....G	8 8¼	7⅛ 7⅜	1 0	10 p c Apr., '94	1 0 0	130,000	Rand........	Warnford-court.†
Wolverand...... ..G	—	—	1 0	—	0 18 0	39,021	Transvaal .	Blomfield House.
Worcester ....G	4⅛ 4⅜	4⅜ 4⅝	1 0	15% Apr. '95	1 0 0	90,727	Rand........	8, Old Jewry.‡
Zambesia Explora.	3¼ 3⅜	2⅞ 3⅛	1 0	—	1 0 0	65,000	Transvaal .	13 George-st., E.C.

KAPANGA.—W. H. Argall, May 6: I beg to submit the following report for four weeks ending 4th inst.:—The crosscut west from the 800 feet chamber has been extended a farther distance of 90 feet by 12 men, making total 597 feet. During the month the country rock has been very hard and full of joints, with small veins of calcite running in all directions. We also intersected a formation, between walls about 18 inches in width, bearing about north 20° east dipping to the north, composed of clay, calcite, quartz, and mullock, the whole being highly mineralised and letting out water freely. Very probably this has something to do with the reef that we are driving for, which no doubt is standing to the westward, and which we expect to intersect in about 50 feet more. The rise in the intermediate level on the Kapanga reef has been extended 6 feet by two men, making total 46 feet. We have also done some stoping. During the rising and stoping we encountered quartz containing heavy blotches of gold at intervals. The reef is 6 inches in width, and is of a most promising character. I am, notwithstanding, disappointed, as really I expected we should ere this have struck some good ore. We have commenced to rise on Scotty's reef from the end of crosscut at 420 level. Our reason for so doing is to hole to the intermediate proper, and when this is accomplished a large block of ground will be available for stoping. We have every reason to believe that the ore which will be extracted will be of a very productive nature, as it is in the run of golden country. In the back of the 420 feet level on Scotty's reef and another rise is being put up by two men 19 feet, making total length 32 feet. We hope to hole shortly to the intermediate and Blithe's levels. The reef is 18 inches wide, composed of quartz and clay of a very dark blue colour and full of iron pyrites. As soon as communication is effected we shall commence to crosscut west in order to strike the hanging-wall branch of Scotty's reef, and then hope to pick up the lost run of gold. The 420 main drive has been advanced 25 feet by two men. The reef at present is small, but the country rock is congenial. This level is being driven with the object of picking up the No. 4 shoot of gold, which we believe is standing to the south. At the 300 feet level we are rising on Scotty's reef (footwall portion). Two men are engaged about this work, and at present we are up 59 feet. The reef looks extremely well, about 20 inches wide, carrying the productive class of quartz and clay, and iron and arsenical pyrites distributed throughout. About 200 feet further south we are putting up another rise by two men. The reef at this point gave every indication of carrying gold, in fact we got a few stones showing the precious metal, and really I cannot understand why we are not getting rich ore as better indications we seldom see. During the month the diamond drill has only bored a distance of 6 feet, making total done 106 feet. The progress of boring has been hindered by the hole continually filling up, consequently we were obliged to tube the same, which was slow work owing to tubes constantly getting jammed. We have certainly passed through reefy matter, as pieces of quartz have come up mixed with mullock and iron pyrites. I may say that the cores during the last 40 feet of boring showed a splendid quality rock, and, in my opinion, should prove productive in depth for auriferous reefs. The other machinery and pitwork are in good order.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(BY OUR SPECIAL CORRESPONDENT).

THE prospects of a political contest have—temporarily, at all events—diverted attention from the Cornish share market, and there is very little probability of any large business during the next few weeks. People will scarcely care about dealing while things remain unsettled, and there will be the further feature of uncertainty as to the tin market, and the effect which a General Election may have on the price of metal in common with all other commodities. Business, however, cannot be very much less than it has been lately, and people cannot be very much less disposed to invest. A good deal of the reluctance which investors have shown lately has been due to the delay in the placing of the new Dolcoath shares on the market. It was generally thought that the books of the old company would have been closed, certainly by the end of last week, and that the new company would have been registered some days ago. We understand, however, that there has been a little hitch, not by any means serious, but that whatever difficulties have arisen have been practically overcome, and that the next day or two will see the registration effected. The directors of the new company will be seven, and will include Mr. Michael Henry Williams (Chairman), Mr. Frank Harvey, Mr. William Rabling (three of the four members of the old committee) the other member, the Rev. W. W. Butlin, having sold his interest. Of the other four directors, Mr. Oliver Weatherhed, who has practically conducted the negotiations of the London capitalists, will be one; Captain Josiah Thomas will, as managing director, have a seat on the board, and the names of the other two have not yet transpired, but it is understood that they will be two of the London gentlemen who are finding the additional capital.

A GOOD deal of work is already being done in preparation for the new order of things, and plans are being drawn for some improvements in machinery. The great idea, as may be gathered from our interview with Mr. Arthur Thomas, will be to improve the facilities for drawing and dressing, with a view to getting machinery to work automatically, and so obtain a maximum of return for a minimum of labour. From the time the stuff is broken underground to the time the tin is calcined, the number of times it is handled under present conditions is extraordinary, and the aim will be to considerably reduce the cost of labour, and consequently the cost of production. This will not necessarily involve reduction in the number of hands employed in the mine, because it is intended to deal with a much greater quantity of stuff. The details of such a scheme as this must be enormous, and somebody will have a good deal of onerous and responsible work before it is completed.

EVERYONE will be gratified to hear that both cablegrams and letters have been received from Captain Josiah Thomas from the Cape, from which it is evident that the improvement in his health which was reported from Madeira has continued, and he will, no doubt, meet with a warm reception when he once more returns to the head of affairs at Dolcoath. Very great praise is being bestowed by all who know the circumstances on the way in which affairs at Dolcoath and the other mines of which Captain Josiah is the manager have been conducted during his enforced absence by Captain Arthur Thomas.

THERE is absolutely nothing new to report from any of the other mines. No discoveries of importance have taken place lately, though some are very badly needed.

SIDE LIGHTS ON THE LAW:

Legal Jottings on Cases in the Courts, and on Questions affecting Mining, Railway, Financial, Industrial, and allied Interests.

BY A BARRISTER.

COMPETITION in business is the father of many difficult points of law. This has received of late frequent exemplification. The struggle between the London Stock Exchange and the outside brokers which has been raging with increased intensity for some years, gave, only the other day, an illustration of this idea. The Stock Exchange is a great and powerful organisation; but, notwithstanding all its power, many of its members, owing to the keenness of competition among themselves, find difficulty in making a bare existence. In a similar line of business to the member of the Stock Exchange is the outside broker—a perfectly legitimate business man—but not being a member of the Exchange he is unfettered by the rules of that confraternity, imposed for their own mutual protection. The outside broker, unrestrained by the rules of the trades union, is looked upon as a sort of blackleg by the union men within the Exchange, and he not having the power at his back which comes of combination, naturally resorts to those tactics of a free-lance which are not allowed to the persons who have become members of the Trades Union of Stockbrokers. He, therefore, advertises himself and his wares. In these days when advertisement is a power of which no one can quite estimate the value, and without which many a man finds that he must go to the wall, a temptation is thrown in the way of the more hard-hit or less fortunate members of the trades union to intrigue with, or enter into secret understanding with non-union men who are not bound by the rules of the society to which they belong. If non-union men help such struggling members of the trades union, it is natural that the former should demand corresponding return, and it follows that opportunities as are afforded to union men should be the consideration which is sought.

IT was such a state of things that brought about the circumstances that led to a question being raised recently before Mr. Justice Mathew—viz., whether the Exchange Telegraph Company could restrain Messrs. Gregory, the outside brokers, from publishing the tape prices supplied by the Stock Exchange for the use of its members, and which the telegraph company had access to, and published for that purpose, under contract with the Exchange. In order to maintain their action, the telegraph company desired to bring their publication of the tape prices within the meaning of the term of "a literary composition," and as such within the protection accorded to copyright publications. One important obstacle in the way of the telegraph company was the nature of the composition. It is generally recognised that a literary composition to be protected must be the result of a certain amount of brain-power, and here lay their difficulty. In a recent case ("Chilton v. The Progress Printing Company") the Court refused to help a gentleman who sought to restrain the defendant company from repeating his judgment, or tip, as to what horse would win a certain race. This tip, too, was capable of being transmitted from person to person by word of mouth without any context capable of being designated as a literary composition. In this sense there was great similarity to the quotation of prices of stock or shares appearing upon the tape. It appeared that the only brain-power used was the collection of the prices on the Stock Exchange, and it was said that for this a person and an experienced member of the Stock Exchange had to be engaged. The result was that Mr. Justice Mathew in the end thought that there was sufficient evidence to enable him to come to the conclusion that the matter formed a "literary composition." He absolutely refused, however, to give a definition of what a "literary composition" was such as would satisfy the Copyright Act, and which would be a guide either to the legal profession or the man of business in future. In so refusing he may have disappointed many, but was undoubtedly right, and followed the precedent of other learned Judges. Indeed, Lord Chief Justice Jervis long since expressed his opinion that it was perhaps absolutely impossible to lay down any general rule, and stated "it was a matter of degree which must depend upon the circumstances of each particular case." After this decision the compiler of the tape prices on the Stock Exchange no doubt will consider himself a literary man, and whether or not he will be as such accepted as a member of the Society of Authors may remain to be seen.

THE case of "Robson v. Smith," lately decided by Mr. Justice Romer, is of interest and importance to debenture-holders, as well as to creditors of Limited companies. If the debenture is that is called a "floating security," that is, if it is a charge which permits the company to deal with its assets in the ordinary course of business until it is wound-up or stops business, or a receiver is appointed at the instance of the debenture-holders, a person who has obtained a judgment against the company may, by garnishee proceedings, attach debts due from third parties to the company, and be paid in priority to the debenture-holder. In the case in question the plaintiff was the holder of a debenture, the payment of which had become due. Being unable to obtain payment he brought his action against the company and obtained summary judgment under Order 14. He then obtained a garnishee order for the payment by debtors of the company of debts due from them to the company to the amount of his judgment.

"THE law cannot take cognisance of the intention in a defendant's mind, so long as he does nothing wrong in order to carry out that intention." So says Lord Esher, and it would seem the Master of the Rolls is right. This crisp statement of the law was called forth by a case which illustrates in a somewhat emphatic manner the absolute right of every English trader to the utmost limit of freedom in competition. The exigencies of trade, and the struggle for obtaining business, often gives the honest and conscientious man reason to pause and consider whether his moral sense of right and justice justifies an action which his commercial inclination pronounces expedient, but which his own strong desire for self-respect condemns. He looks for some guide, often in vain, which will not fail him and his reputation when the time comes to take account of his stewardship. I think it was Blackstone who said that the study of the law was a necessary part of every gentleman's education. It might be said to-day that some knowledge of judicial decisions is, if not the duty, at any rate an essential acquisition of every business man. Many judgments of the Judges of to-day, if studied by business men in search for guides for business conduct might be read in lieu of sermons, and would in some cases bear the test of common sense.

IN the case before me the plaintiffs had for years been making and selling "camel-hair belting," which is used for machinery. They did a large trade with India, and were the sole manufacturers, so that in time the article was known as of their manufacture. Time went on, and competitors came into the field who also made camel-hair belting for machinery, and sold it as such, knowing or expecting that it would be bought as of plaintiffs' manufacture, and relying on that hope or endeavouring thereby to cut the plaintiffs out of the market. The plaintiffs sought to restrain them from the use of the name "camel-hair belting" as applied to such goods, on the ground that goods so described meant in the market, or were understood to mean, goods made by the plaintiffs, and that the defendants so described their belting as it was likely to mislead purchasers and to lead them to buy it as and for the plaintiffs. These facts the plaintiffs proved to the satisfaction of the jury. The words "camel-hair belting," it was admitted by the plaintiffs as used by the defendants was substantially true as applied to the goods sold, and correctly described the article manufactured and sold by the defendants. Why, therefore, it was said, should not the defendant use them. The plaintiffs, against this suggestion, contended, because they had used them and had acquired a reputation, so that the goods were known as their goods by those words so describing them. Had the Court allowed the plaintiffs' contention, the result would have been that the plaintiffs would have had a monopoly of the English language, which correctly described their goods, and other people would not be allowed correctly to describe goods which they would have a right to make and sell. As the description was a true and accurate description of the goods, the question was taken outside all previous decisions which were relied upon by the plaintiffs where the name amounted to a "fancy name." The Court, therefore, held that the defendants did no wrong, and doing no wrong, their intention could not be investigated. The decision amounts, therefore, to a declaration that a man may describe his goods as he pleases, so long as he tells the truth, and notwithstanding he intends to take away and appropriate to himself another's custom whose goods are sold and known under that name.

REPORTS FROM THE MINES

BRITISH MINES.

DEVON GREAT CONSOLS.—Wm. Clemo, June 27:—Watson's engine shaft. In the 172 fathom level east the lode is still yielding a little copper and mundic ores. In the 148 fathom level east the lode continues promising, and is yielding 3 tons of copper ores and mundic per fathom. Owing to the long continuance of dry weather the River Tamar has become very low, and the water supplying our large wheels at Blanchdown is falling off. We are, however, preparing to start the steam engine at Wheal Anna Maria in case it should be required.

LEADHILLS.—W. H. Paull, June 24: Brown's vein. The vein in the 160 fathom level going north of Jeffrey's shaft is 4 feet wide, composed chiefly of stone and spar unproductive. In winze sinking below the 145 fathom level north of Jeffrey's shaft the vein is 4 feet wide, yielding 20 cwts. of lead ore per fathom. The two stopes over this level north of Jeffrey's shaft are each worth 25 cwts. of ore per fathom. The stope over the 115 fathom level north of Jeffrey's shaft now yields 50 cwts. of ore per fathom. The vein in the 100 fathom level going south of Wilson's shaft is 4 feet wide, and of the same character as of late. The crosscut east at the 100 fathom level has been extended 11½ feet since Raik vein was intersected, and branches of spar with spots of lead ore therein are still being met with. I purpose continuing the crosscut a few feet further to fully prove the width and value of said vein before commencing to drive thereon. There are no alterations worthy of comment in any of the other bargains.

TINCROFT.—Agents' report, June 21: In the 342 crosscut, south of Martin's east shaft, we have driven through the lode about 12 feet. The average yield is 24 lbs. of tin per ton of stuff. We are still driving on the crosscut to prove the south part of the lode. In the 330, driving west of crosscut, west of Martin's east, the end is producing low quality tinstuff. We have removed the men from the 320, east of Martin's east, to the 270, in order to crosscut the lode east of shaft at that point. In the 300, driving east of crosscut, west of Martin's east, the lode is worth for tin £15 per fathom. In Harvey's engine shaft the men are engaged cutting a bob plat at the 258. We have completed the lift in Downright shaft to the 330, and shall now proceed to cut the plot at this level forthwith. —Dunkin's lode. In the 320 crosscut we expect to hole the rise in the back of this level to the 315 during the next few days, which will lay open a good section of tin ground.—North Tincroft. In the 174, driving west of winze, east of Willoughby's, the lode is worth for tin and arsenic £18 per fathom. In the winze sinking below the 164, east of Willoughby's, lode is worth for tin and arsenic £20 per fathom. In the 145, driving west of winze, east of Willoughby's, lode is worth for tin and arsenic £12 per fathom. In the 120, driving east of Willoughby's, lode is worth for tin, arsenic, and copper £13 per fathom. In the 100, driving east of Willoughby's, lode is worth for tin and arsenic £10 per fathom. There is no change worthy of notice in the 154 fathom level crosscut since last reported. —William Teague.

WEST KITTY (St. Agnes, Scorrier, Cornwall).—June 27. The 94 end driving west is worth £7 per fathom. The 84 end driving west is worth £12 per fathom. The 72 end driving west is worth £7 per fathom. The 60 end driving west the lode is small, producing little tin, but not to value. The 60 end east south of slide is worth £10 per fathom. The 60 end west south of slide is worth £12 per fathom. The rise in back of 60 fathom level east of crosscut is worth £14 per fathom. The 50 end east south of slide lode is improved, and worth for tin £9 per fathom. The 50 end west south of slide is worth £7 per fathom. Our stopes and tribute pitches continue to yield the usual quantity of tin. We are still making good progress in sinking Thomas's shaft, and hope to sink 5 fathoms, and cut pole ground this month for fixing pole at the 35 fathom level.—(Signed) John Williams, Joel Hooper.

COLONIAL, INDIAN, AND FOREIGN MINES.

BLAGROVE'S FREEHOLD.—During the month the necessary excavations for pumping and winding engines have been pushed ahead, and will be ready for the machinery on arrival. The smith's shop has been erected, and we are now making out ground for the other necessary buildings. An adit level has been started, which will unwater the engine shaft 50 feet from the present brace. The water will only be pumped to this level, therefore we shall be able to sink 300 feet instead of 250 feet. At the point mentioned (50 feet from the surface) we purpose fixing a 4-inch plunger pole, with the object of having sufficient water to the surface to supply the boiler with feed.—W. H. Argall.

BREMNAES GOLD.—The following report has been received from the manager, Mr. John Daw, jun., dated Haugesund, June 22: We are glad to report all work is being pushed ahead with speed, also that the weekly assays show there is a general improvement in the quartz being raised. We shall increase our staff of miners as fast as circumstances permit, so as to hasten the development of the different points attacked, as they promise remarkably well for future returns.—Section 4. 400 level north quartz 8 inches wide, containing some iron and copper pyrites, and assaying 6½ dwts. gold to the ton. Some of the samples have shown a much higher result, but we take that given here as about the average value. In the stope above the quartz is in strings or layers, hence difficult to separate from the dead rock, assay value 7½ dwts. Winze sinking from the 300 to 400 feet level shows quartz about 12 inches wide, with a gold value of about ¼ ounce to the ton. In the 200 south the quartz is about 14 inches wide, but no assay has been made this week. All other points are without alteration.—Section 5. We have the last lot of assays and tests in hand, and shall report result next mail. The men stoping in back of level are breaking some very good looking quartz, in which occasional stones of gold are seen.—Lower workings. We have started the pump, and shall report progress weekly.

BROKEN HILL PROPRIETARY.—Report for the week ending June 27, 8642 tons of ore were treated, yielding 679 tons of lead containing 175,744 ounces silver; also 1333 tons treated by amalgamating and leaching plants producing 14,161 ounces silver. The price of the shares in Melbourne is £2 4s. 6d. buyers.

HAURAKI.—Francis Hodge, May 15: I beg to hand you the following report for the month ending 4th inst.:—Main shaft. This shaft has been sunk 13 feet, making the total depth below the 100 feet level 168 feet. A chamber was cut at 60 feet, leaving 8 feet for a fork. The 160 feet level crosscut was driven 7 feet westerly through a good channel of gold-bearing rock. The 100 feet level has been driven north in No. 2 reef in a reef averaging 8 inches wide. This drivage produced rich specimens, and good stamping ore. The stopes above the 100 feet level working by six men, have turned out well during the month, and produced the greatest quantity of picked specimens stoped respectively in sections 6 feet, 34 feet, and 21 feet. The size of the reef varies from 6 inches to 3 feet 6 inches. I should remark here that portions of the reef here, where the reef is wide, it is necessary to stope to its full width to carry all quartz that will pay to stamp, consequently we cannot place more men on this ground until our stamps are ready; but with our stamps at work, our tunnel completed for transit of quartz, and our new engine at work, the stopes, and practically the whole mine, will be working to the best advantage and in regular way. Considerable miners that we have now doing surface work will be employed underground, and in about six weeks from now I hope to have got over the heaviest part, and all extra costs overcome, so that the mine will go on working on its merits. The south level at the 100 feet on No. 2 reef has been driven 12 feet in a reef about 2 feet 6 inches wide, and we have stoped 36 feet in length above this level in a reef 2 feet wide, lode poor, but occasional colours of gold met with. The 100 feet level south on No. 3 reef has been extended 40 feet 6 inches, the reef averaging small, about 4 inches, and disordered. We met two droppers on the footwall carrying colours of gold, which speaks well for the next level. The crosscut west at the 100 feet level was driven 12 feet in a good channel of country for gold.—Rises. Tribute No. 6 block is now in possession of the company; the above crosscut is going out under their run of gold, and I hope it will open up a good section of ground. The crosscut west in John Bull level has been driven 26 feet. The channel of rock here is somewhat improving in appearance.—Tributers. The tunnel to go straight from the main shaft to stamps have been commenced at both ends, and opened and timbered respectively 30 feet east end and 12 feet in the west end. The work at the battery is being pushed forward, and all surface work necessary is now getting in a forward state. The winter season rains, however, have commenced, but under the circumstances we will do our best to complete all we have in hand.

WASSAU (GOLD COAST).—The produce of the mine for the month of April last, realised £1388 19s. 5d. Ten stamp battery worked 14 days 2 hours, and crushed 276 tons, producing 322 ounces standard, giving a yield of over 1 ounce 3 dwts. per ton. In addition to this, low grade ore put through 12 stamp battery produced 34½ ounces standard, making a total return of 356½ ounces standard. Cablegrams have since been received advising the remmittance for last month as 420 ounces bullion, and a yield of 1 ounce 9 dwts. per ton.

ANGLO-MEXICAN.—The manager, writing from the mine under date May 22, says as follows:—Crosscut No. 1 East, Main tunnel. Work in this tunnel was advanced 10 feet during the week under review, giving it a total length to date of 27 feet. This crosscut is being run with the object in view of tapping the Old Peraza Shaft sunk from the Muertos tunnel, a distance of about 200 feet from the point of departure of the crosscut from the Main tunnel. The vein in the vicinity of the old shaft referred to has produced several bonanzas in its time, having been abandoned, it is said, owing to the caving in of the ground, burying several miners. From a study of the ground I think it is well worth prospecting, and hence the crosscut which we have started to tap this region.—Face of Guadalupe. This tunnel was pushed ahead 16 feet during the week, making a total distance run to date of 2527 feet. I regret to say that the face of the tunnel is completely barren, the vein matter having almost entirely disappeared so as to be hardly distinguishable from the country rock. I do not think, however, that we are as yet warranted in abandoning this work for some time, as there is a possibility of our running into another chimney of ore in this direction.—Upraise No. 14 drift south from air winze. This upraise was advanced 11 feet during the past week, making a total height to date of 82 feet above the south drift. The vein in the face of this upraise has narrowed down considerably, measuring only 2 feet, and the grade of the ore has also fallen off very materially.—Upraise No. 11, No. 1 level. Work in this upraise was advanced 13 feet during the week under report, making a total height to date above the No. 1 level of 154 feet. This upraise has now attained a greater height than of the other opening on this part of the vein, and I am pleased to say still carried ore averaging about 3 feet in width, and assaying about $80 per ton in gold.—Drift south upraise No. 11, No. 1 level. This drift was advanced 12 feet during the week under review, giving it a total length to date of 46 feet. The ore in the face of the drift is 4 feet in width, and of high grade, and gives promise of developing into a little bonanza. We will know more about it, however, within a few days, and I will then advise you.—Drift north upraise No. 11, No. 1 level. Work in this drift was advanced 11 feet during the week under report, making a total length to date of 59 feet. The vein in the face of this drift is of fair width, and carries ore assaying about $90 per ton in gold.

CHIAPAS.—Mine report for fortnight ending May 15: Providencia Aver driven 7 feet, total 259 feet; changed to wollastonite again. Taylor main extension driven 4 feet, total 632 feet; continues to show traces of gold and silver. Santa Fe hill No. 3 driven 9 feet, total 75 feet 6 inches; no change. Sylva crosscut No. 2 driven 2 feet, total 104 feet; no change. Sylva crosscut No. 3 driven 2 feet, total 27 feet; shows spots of ore occasionally. Pine creek No. 2 driven 13 feet, total 74 feet; no change. Pine creek No. 3 driven 7 feet, total 30 feet; no change.—Extraction. Old Providencia, 421 tons extracted. In not such fine ore as formerly. Santa Fe hill, 63 tons extracted, in very good ore. Santa Fe stopes, 282 tons extracted; in good ore, but dropped of late. Taylor No. 3, 21 tons extracted; in very good ore.

D'ARCY ESTATES.—Report dated May 18: Main shaft sunk 6 feet during week, total depth 390 feet; rock continues very hard.—Portion 54. Alluvial shaft shows a small lead of gravel, prospecting fairly.

ELKHORN.—Copy of Mr. C. A. Molson's monthly report for May:—Mine: Ore breaking department. 550 feet level south. The vein is 6 feet wide, and the value 37 ounces. The ore is extending into the footwall and increasing in size.—650 feet level south, porphyry stope. The vein is 18 inches wide, and the value 40 ounces.—750 feet level south, under No. 2 stope. The vein is 30 inches wide, and the value 35 ounces.—North of the shaft. The vein is 1 foot wide, and the value 55 ounces.—850 feet level. No work has been done here during the month.—950 feet level north, north end. The vein is 9 feet wide, and the value 42 ounces.—Raise stope. The vein is 18 inches wide, and the value 33 ounces.—1050 feet level south, north end of stope. The vein is 1 foot wide, and the value 36 ounces. The ore is making irregularly into the footwall.—North of the shaft. The vein is 3 feet wide, and the value 35 ounces. Some oxidised lead ore occurs on the footwall. The streak is 8 inches wide, and assays 96 ounces silver, and 12 per cent. lead.—1150 feet level south, south end. The vein is 30 inches wide, and the value 30 ounces.—North of the shaft, raise stope. The vein is 18 inches wide, and the value 30 ounces. This place still yields a small amount of shipping ore.—1250 feet level north, underhand stope. The vein is 4 feet wide, and the value 25 ounces.—1350 feet level south, raise stope. The vein is 3 feet wide, and the value 28 ounces.—Main stope, south end. The vein is 20 feet wide, and the value 31 ounces. A small amount of lead ore has been broken here. The stope is approaching the bottom of the 1250 feet level.—North end. The vein is 15 feet wide, and the value 35 ounces.—1450 feet level south, back stope. The vein is 15 inches wide, and the value 97 ounces and 6 per cent. lead.—Centre stope. Work has been stopped here, the ore being thin and of low grade.—North of the shaft. The vein is 15 inches wide, and the value 60 ounces.—1550 feet level south. A small amount of lead ore, assaying 122 ounces, and 12 per cent. lead, has been broken from the footwall side.—1650 feet level south, outside stope. The vein is 3 feet wide, and the value 40 ounces. Some shipping ore is sorted out from this place.—Inside stope, underhand.—The vein is 18 inches wide, and the value 60 ounces. This ground will be worked from the intermediate drift from the 1750 feet south raise.—1750 feet level south, outside stope. The vein is 1 foot wide, and the value 55 ounces.—Inside stope. Work has been commenced at the north end of the main chute, 652 feet from the shaft. The vein is 30 inches wide, of which 18 inches assays 36 ounces.—Prospecting department: 1750 feet level south. Intermediate drift from raise advanced 47 feet, which is the total distance. Low grade ore is found in the drift, which is being extended to prove the ground under the inside chute on the 1650 feet level.—North of the shaft. Previously reported 25 feet, advanced in May 12 feet 6 inches, total length June 1st 37 feet 6 inches. This drift was extended so that work might be done here during the sinking of the main shaft.—Main shaft. Sinking was resumed on May 22 The depth below the 1750 feet level is 45 feet, the advance for this time being 22 feet.—Amount and source of ore hoisted. 550 level 60 cars, 650 level 54 cars, 750 level 60 cars, 750 level 60 cars, 950 level 152 cars, 1050 level 164 cars, 1150 level 110 cars, 1250 level 274 cars, 1350 level 601 cars, 1450 level 259 cars, 1550 level 34 cars, 1650 level 123 cars, 1750 level 46 cars; total, 1937 cars. Number of tons, 1156.—Milling department. The mill made a steady run during the month. A partial clean-up was made preparatory to rebuilding the roasting furnace.—Table of work performed. Ore on hand May 1, 115·55 tons; raised from the mine, 1156 tons; less smelting ore, 19·03 tons; waste, 169 tons, 188·03 tons, 967·97 tons. Add for salt, 184·18 tons; dry ore panned, 1193·97 tons.—Pulp in the mill. All the pulp on the cooling floor was put through the pans during the hang-up of the battery and repairs to roaster. Rough ore in stock, 73·73 tons; total, 1267·70 tons—Table of mill work. Dry ore panned 1193·969 tons, average assay value 39·19 ounces, average percentage salt used 14 per cent., average value of tailings 3·49 ounces, average percentage saved 92·25 per cent., No. of Doré bars produced 41 bars, No. of ounces fine silver 39,341·08 ounces, No. of ounces pure gold 33·841 ounces, batteries in service 26 days 7 hours, pans in service 30 days, estimated value of bullion produced $25,575·00, excess on April shipments 182·81, actual returns for 19 tons ore shipped 1499 34, $27,257·15, current expenses, including salaries, labour and supplies, &c., $22,433 82, balance, being profit for May (or at $4 85 to £ sterling equals £994) $4823·33.—Surface department. Everything is proceeding in its regular order in this department. The new powder magazine is completed, and the stock stored there. The wet season has begun, both rain and snowstorms being frequent. The surface supply of water is abundant again.

FORTUNA.—Mine report dated June 19: Canada Incosa Mine. In the 110 fathom level driving west of San Pedro's shaft the lode is unproductive.—Los Salidos Mine. We have passed through a small crosscourse in the 212 east of Taylor's engine shaft. Good progress is being made in driving. The lode in the 200 east of the same shaft continues large, but has declined in value. It is now estimated at ¾ ton per fathom. The 105 east of Palgrave's shaft, valued at ½ ton per fathom, has holed to Corzo's winze. The lode contained good stones of ore.

GOLDEN HORSESHOE.—The directors have received the following preliminary report from Mr. F. Bowes Scott, the resident engineer:—The valuable work done upon this lease consists of a discovery shaft, near the north-west boundary, sunk on the underlay of a strong, well-defined lode 4 feet in width, which strikes 35° west of north, apparently continuing through the Chaffer's lease, and which, in the opinion of some, is the same lode as that worked in the Ivanhoe lease. At present I should prefer to offer no opinion as to whether this is the case. The district contains so many valuable lodes, running nearly parallel with one another, and often faulted, that any hasty judgment is inadvisable, and in a sense can be dispensed with if the lode is of value in our lease. The shaft mentioned, some 40 feet in depth, I have abandoned as useless for practical purposes. A section of the lode sunk on, and followed by an underlay shaft, has the appearance given in the accompanying ideal sketch. The object of the new shaft is to catch the lode at a point where it dips almost vertically. A similar shaft is being sunk to intersect the lode at a point some 50 yards to the south-east. The yield of the stone from pan tests I consider will not run much under on an average 3½ ounces to the ton, and I think there is the very best of reason for believing the lode will, as it is opened, fulfil its excellent promise. Other lodes may exist on the property, but I recommend for the present confining the work to the Horseshoe lode.

HARQUAHALA.—Copy of Mr. Robert M. Raymond's report for the month of May:—Mining department, Bonanza group, ore-breaking. Very little ore was broken during the month, but preparations have been completed for taking out the pillars of the Discovery Vein, and ore-breaking has now been resumed.—Prospecting. East contact drift, from 4th level. The drift following near the contact towards the east side line has been advanced 108 feet, a total of 427 feet. The contact streak has been of considerable width, with a favourable appearance at times. Only occasional traces of gold have been found, and nothing outside of the contract streak or bed. West contact. Work in this direction has been carried on at various points. The raise, started at the most favourable point along the contact has been continued 24 feet higher, and drifts run 45 feet north and 13 feet south from the top of this. The upper part of the raise has not proved encouraging, and nothing was found in the top workings. The ground adjoining this raise has also been prospected with the Diamond drill. The main drift going west has been resumed to prove the ground farther in this direction. This has been advanced 23 feet, and will be continued.—5th level, No. 5 crosscut south-east. This has been advanced 32 feet, a total of 167 feet. Porphyry was encountered, rising as we advanced, and much as it was found in crosscut No. 3. The indications near the contact were not encouraging, and our hopes in that direction have been cut off. The Diamond drill is now boring a hole upwards from the heading of this drift to test a block of ground on the iron vein above the 4th level.—Iron vein, 1st level, south. A crosscut from the late stopes at this point was run 30 feet south-east under the old workings. A heavy iron streak 3 to 4 feet thick was followed, but only traces of gold found in it. The main level was advanced a short distance south to examine the ground beyond. The vein has been faulted here and evidently lies some distance above.—Iron vein, above 4th level. Some explorations here have opened up a small body of ore running from $10 to $12 in value. The workings surrounding it show its extent to be limited.—Underlying porphyry. Further developments with the Diamond drill have shown nothing encouraging as far down as we can reach at present.—Golden Eagle group. No. 1 winze south, 200 feet level. The crosscut at this point was advanced to 40 feet, and a raise put up 10 feet. Porphyry being present here, drifts were started from the 150 feet level, from which point the porphyry evidently flattens out. The drift north has been run 20 feet, and to the south has just been started. They will test the ground on this level.—No. 1 winze north. The drift from the bottom of this winze was run out into the hanging-wall about 12 feet, but without further encouragement. Surface work. Exploration work on the surface of the Golden Eagle and Golden Belt claims has been carried on. Indications gave some hope for ore, and a few pits were dug. The best that could be found was only $1 to $2, and the depth shallow.—Milling department. The mill has been put in good order, and 20 stamps started to-day, running on ore from the old pillars and workings. These must necessarily be handled cautiously, and it is doubtful if more than 20 stamps can be operated during the month.—Tailings plant. This is nearly completed. The vats are all in place, and are in good condition, and ready for work. The principal work remaining is the erection of the rope tramway, which is well advanced. Everything will be complete and ready for work by the middle of the month.—Expenses. The expenses for the month are as follows:—Prospecting and general expenses, $7,900·00; Cyanide plant, $11,200·00; total, $19,100·00.

NEW CRŒSUS.—The general manager reports for the month of May that the new 60 stamp battery started work on 28th May, and during the three days crushed over 900 tons of ore, and that the plates were fairly set, and anticipated that the crushing for the month of June would yield excellent returns.

SPITZKOP FARM.—The following are extracts from letter received from the mine dated, May 29: The cyanide plant is now in full swing, everything in connection with it acts in a most satisfactory manner. The solutions from the leaching vats are now continuously running through the extractor boxes, which are filled with zinc shavings, which precipitate the gold. It is the opinion of your cyanide manager that the precipitation of gold on them is all that can be desired. . . . So far, our new start gives every promise of success. The mill returns will be low, but the cyanide I have every reason to believe will yield good returns.

TOLIMA.—The directors have received advices by the mail of June 26, from their mines, of which the following is an abstract: Frias estimated April returns (120 tons) silver, valued at 29d. per ounce, £3723 19s. 2d.; Frias estimated cost, £3013 9s. 9d.; Frias estimated profit, £710 9s. 5d. The underground agent reports 79 fathoms 2 feet 6 inches of ground expended, of which 67 fathoms 4 feet 5 inches were productive, leaving 11 fathoms 4 feet 1 inch of unproductive ground. The superintendent, writing under date of May 15, says that he sees every reason to anticipate an early improvement in the returns from the mine. He reports that in the 140 fathom east, winze No. 1, sunk 67 feet below the 140 fathom level, there is evidence of the continuance of the rich mineral the whole length of the winze, and he gives the average grade throughout at 587 ounces to the ton, and the average volume of ore as 2 tons to the fathom. The lode at the lowest point in the mine he reports to be 8 feet wide in the west end of the winze. The 130 fathom level east from the 120 fathom east winze No. 2 had given an average yield for the month of 2½ tons to the fathom; whilst the 110 fathom west end north branch is reported to have yielded an average of 1 ton per fathom during April, of a class of mineral assaying over 500 ounces to the ton.—Underground report. 140 fathom west end north branch was driven 6·2 feet by two men at $85 per fathom, and the lode remains poor. 140 fathom east end was driven 8 feet by two men at $70 per fathom, thus being 269 feet as total east of the west winze, and the lode is unchanged. 140 fathom east back stope No. 1 was stoped 36 feet by four men at $24 per fathom, and yielded 3½ tons of mineral per fathom. 140 fathom east winze No. 1 was sunk (during a part of the month) 3·7 feet by eight men at $140 per fathom, thus being 64 feet as total depth below the sole of the 140 fathom level, and the lode yielded 2 tons of high-grade mineral per fathom. The lode is about 7 feet wide, and the mineral is much stronger in the west end than in the east end of the winze. In the course of a few days we hope to be in a position to drive the 150 fathom level upon the course of the lode both from the east and west ends of this winze. 130 fathom west end was driven 10·5 feet by two men, at $50 per fathom, thus being 457·2 feet as total west of the west winze, and the lode holds poor. 130 fathom west back stope No. 1 was stoped 43 feet by four men, at $22 per fathom, and yielded 2 tons of mineral per fathom. 130 fathom west back stope No. 2 was stoped 30·3 feet by four men at $30 per fathom, and yielded 3½ tons of mineral per fathom. 130 fathom west back stope No. 2a was stoped 26·6 feet by four men, at $30 per fathom, and yielded 4 tons of mineral per fathom. 130 fathom east back stope No. 1 was stoped 20 feet by four men at $40 per fathom, and yielded 3 tons of mineral per fathom. 130 fathom east back stope No. 2 was stoped 15 feet by four men at $40 per fathom, and yielded 2½ tons of mineral per fathom. 130 fathom east crosscut north was driven 7·3 feet by two men at $100 per fathom, thus being 60·3 feet as total length, and is unchanged. 130 fathom east end from 120 east winze No. 2 was driven 22·5 feet by four men at $70 per fathom, thus being 43·5 feet as total east of the winze, and the lode yielded 2½ tons of mineral per fathom, but the present forebreast is much declined in yield of mineral. 120 fathom west back stope No. 3 was stoped 22·3 feet by four men at $25 per fathom, and yielded 15 cwts. of mineral per fathom. 120 fathom east back stope No. 1 was stoped 23 feet by two men at $30 per fathom, and yielded 1 ton of mineral per fathom. 120 fathom east back stope No. 2 was stoped 7 feet on company account, and yielded 5 cwts. of mineral per fathom. 110 fathom east end was driven 5·1 feet by two men at $75 per fathom, thus being 891·4 feet as total east of the engine shaft, and continues in a tight and poor bar of ground. 110 fathom east bottom stope was stoped 25 feet by two men at $23 per fathom, and yielded 10 cwt. of mineral per fathom. 110 fathom east end north branch was driven 9 feet by two men at $75 per fathom, and the lode yielded 10 cwt. of mineral per fathom. 110 fathom west end north branch was driven 7·6 foot by two men at $75 per fathom and yielded 1 ton of mineral per fathom. 110 fathom west back stope, No. 2, was stoped 6 feet on company account, and yielded 2 tons of mineral per fathom. 90 fathom east end was driven 10·5 feet by two men at $50 per fathom, thus being 1,069·8 feet as total east of the engine shaft, and the lode is unchanged. 90 fathom east bottom stope was stoped 31·6 feet by two men at $25 per fathom, and yielded 1 ton of mineral per fathom. 90 fathom east back stope, No. 1, was stoped 53·6 feet by four men at $20 per fathom, and yielded 15 cwts. of mineral per fathom. 80 fathom east stope was stoped 24·3 feet by two men at $20 per fathom, and yielded 10 cwts. of mineral per fathom. Shallow adit was driven 10·3 feet by four men and a boring machine at $70 per fathom, thus being 256 feet as total west of the crosscut, and the lode is unchanged. West end from new crosscut was driven 7·2 feet by two men at $67 per fathom, and the lode has yielded here and there some slight bits of very high grade mineral.—Real de Frias. 35 fathom west end north branch was driven 25·6 feet by four men, at $47 per fathom, and the lode holds strong but poor. 35 fathom east end was driven 13 feet by four men and a boring machine at $68 per fathom. The lode has taken a good deal of northerly course of late, and it also is poor.

WORCESTER EXPLORATION.—Details of working for April: Tons milled, 2075; from south reef, 1768; from main reef, 307. Stamps working, 20. Number of days mill ran, 28¾. Yield of gold, 1663 ounces 4 dwts.; concentrates, 302 ounces 7 dwts.; total, 1965 ounces 11 dwts.

WENTWORTH EXTENSION.—Report dated May 18: Crosscut from Carroll shaft No. 1 advanced 10 feet during the week, total length 86 feet. Rock cut through is coarse grained diorite, with quartz stringers. East crosscut in 102 feet. Progress during the week 11 feet, through diorite with serpentine seams.

NEW LONDON ESTATES.—Extract from manager's report dated June 15:—Since last reporting we have bricked up the boiler, moved and fitted up the donkey feed pump, fitted up bob and king posts, sky rod, and have now just finished lowering the pump. We have yet to make the necessary steam-pipe connections, &c. also pumps connection, all of which I hope to finish early next week—Shaft. Since last reporting we have sunk 12 feet, making the total distance from collar down 70 feet, and have timbers in to 68 feet. We should have made greater progress had I not had to withdraw the men from the shaft last Friday morning on account of the water, more than three-fourths of the time being consumed in baling and hoisting water, I considered it advisable to stop sinking until such time as we had the pump in working order. At a distance of 65 feet we had run through the bar of conglomerate into decomposed gray slate, the two veins of quartz continue to hold down and carry some gold, which I am sending to the stamp mill. We occasionally find large "vugh's" in the slate, which so far have invariably carried gold, and which I have had sorted as carefully as possible with a view to sending to the mill. I trust next week when we have the pump in working order to make better progress in sinking.—(Signed) Henry A. Judd.

COLOMBIAN HYDRAULIC.—T. P. Sharman, May 15: Report of run No. 201, La Mesa Mine. After a run of 29 days, during which time the machine was at work for 523 hours, we cleaned-up on May 2 a total of $7751·50, or about £1550, giving a profit of about £1189. A three days break on the Medina ditch is the only incident worth noting. This was caused by a large landslide, and could not have been avoided. There are a great many large stones in the toe of the bank, and these, of course, add largely to the cost of washing the gravel—in fact, had we not been singularly unfortunate in finding these stones nearly all over the La Mesa Mine, the returns would have been much better. The next run will be a continuation west of the present one, and the sluices should give as good returns per hour run, so it is to be hoped there will be a fair clean-up for the final one of the year.

LOMA.—Mr. William St. David Griffith writes, under date May 1: We started hydraulicking again on April 19. Up to that date we were repairing the breaks on the ditches. At the present time we have 500 miners' inches of water on the mine, and the monitor is working with a 5½ inch nozzle. This run will be on the Tabbazo Mine. Every effort is being made to complete the new reservoir, and I hope it will be finished in June. Owing to the late political disturbances, it has been very difficult to get workmen, which has prevented its completion at an earlier date. The ditches and syphons are now giving very little trouble.

DON PEDRO.—Maquiné Mine monthly report, May 31: Since my report of 16th inst. we have been clearing the stopes west of the 50, which we found to be full of low-quality mineral, which had to be cleared to resume stoping operations. On 22nd inst. an incline rise was started from the 50 on the Canoa shoot to intersect the underlie lode. The lode passed through in the rise is of fair quality. We have commenced to clear the stopes east of the 50. The 50 crosscut east is much crushed, therefore, a pare of men are engaged clearing out and repairing this level. As soon as this is completed to the winze the said winze will be resumed and carried on until communicated with the 60, which will lay open a large section of good ore ground. This ore ground embraces the No. 1 line of gold in the southern extremity of No. 8 shoot; also above this there is another line of gold, which was wrought on in March, 1893. This will again be resumed as early as possible.—60 fathom horizon. The crosscut has been cleared from the shaft to the present breast, and on the 17th inst. we resumed the 60 south drivage. The ground here has greatly changed, the lode at present being large and very hard, and of moderate quality. We have a force now clearing the 60 north, and as soon as this is completed and the incline rise from the 60 to the 50 cleared, the force will then be put to clear the shaft to the 70, after which sinking will be resumed.—Shaft repairs. These have been vigorously carried on below the adit, and most of the shaft from the adit horizon down to the 60 is in splendid condition.—Explorations. Ore ground has been met with, but since the stopes have been reached the force from this has been removed to bottom of mine, and the above work suspended for want of force.—Morro de Santa Anna. For the latter part of the month the force has been removed from the two drivages and put to reopen another mine above Bawden's to prove the extensions of the lode. The lode has now been traced following the rise of the hill through the old workings to the satisfaction of Mr. Harvey.—No. 1 drivage. The lode has a good appearance; driven for the month 9 feet, total distance 96 feet.

ALAMILLOS.—Mine report dated June 19:—In the 85 fathoms level driving west of Taylor's engine shaft the lode continues small and unproductive. The lode in the 160 west of the same shaft has very much improved in value, and is now estimated at 2 tons per fathom. The 100 east of Judd's engine shaft is being driven on the crosscourse, and is favourable for working.—Andrez's winze, sinking below the 20 fathoms level. This new winze is situated east of Santa Agueda's shaft.

AUSTRALASIAN MINING.—Fortnightly report of Mr. John James, manager, dated May 9: For the past fortnight the contractors, Bishop and party, have sunk the shaft 32 feet, total 192 feet, and timbered 18 feet, total timbered 158 feet. The country is still limestone, laying in beds, which makes it good for sinking through as it shoots well. The water is keeping about the same. The winding plant is in good working order.

BAYLEY'S REWARD CLAIM.—Ore and gold return for fortnight ending May 4: Estimated amount of stone at grass, 4396 tons; stone raised, 228 tons; stone treated 334 tons; gold won, 335 ounces.—Mining report dated May 6: Sylvester shaft. The timbering of the chamber at the 380 feet level, and making everything secure is completed, and the crosscut extended 4 feet, total now being 17 feet from chamber; it will now be continued until the lode is intersected, which should be some part of the coming week.—220 feet level. Winze at this level has been sunk 4 feet, full depth being 45 feet. Lode shows no particular change.—100 feet level. Stopes still expose a strong body of ironstained stone; from appearances should judge to be fair battery stone.—Gordon shaft. South stope at 50 feet level continues to yield stone of fair value gold being seen in breaking.—North stope. In the north stope there is little or no change to report. Lode is continuing the same size and of average grade.—No. 1 intermediate stope. From week to week shows no particular change, stone apparently being of average value.—Air shaft. Have discontinued driving the north drive, it now being within 6 feet of Everard shaft, will now sink a winze from the level above to connect the two drives and open up the ground for stoping.—South stope. South stope towards Cockshott shaft returning very fair stone, gold being frequently seen. The lode is 2 feet wide.—Everard shaft. North drive from the end of the big blow has been advanced 7 feet, total being 72 feet. Still a small seam of quartz on the hanging-wall side showing course of the lode.—Berdan pans. The Berdan pans have been placed in position, a number of alterations made to enable them to be worked by a counter shaft, enabling one or all to be thrown out of gear when necessary. All the work in connection with them I hope to have completed some part of the coming week.—Crushing. The stone at present being crushed is taken from the stopes 100 feet level, Sylvester shaft, Gordon shaft stopes, and this week from the stope and north drive from the air shaft.—Gold dispatched. On the 3rd inst. 334 ounces bar gold.—(Signed) W. H. Matthews.

BAYLEY'S REWARD No. 1 SOUTH. — Mining report dated May 6: Main shaft. For the present all work has been discontinued in the south drive at the 170 feet level, and intend shortly to open out and drive north. In my last I stated that we intended rising, but have now decided to drive north previous to doing so, as we may encounter a better channel of ground in that direction.—90 feet level. Have resumed driving the north drive. Lode 18 inches wide, gold being visible.—Stope. Have also opened out stopes above the north drive. Lode being of similar size and quality, a little gold at times being seen.—South stopes. In the south stopes there is little or no change to report. The stone this week has not been quite so good as previously, but I hope during the coming week it will improve.—Stone treated. During the fortnight there has been crushed 200 tons. Yield for the same period has been 146 ounces of gold.—Gold dispatched. On the 3rd inst. there was dispatched per escort 202 ounces of bar gold.—(Signed) W. H. Matthews.

CHAMPION REEF.—Mine agent's report for fortnight ending June 3: Dalyell's shaft. This has been sunk 4 feet, total depth 689 feet. We resumed the sinking of this shaft on May 22.—Garland's shaft. This has been sunk 7 feet, total depth 937 feet. Lode 2 feet, assaying 14 dwts. 9 grains of gold per ton. In consequence of an accident here the sinking was suspended for one week. The 840 feet level north has been extended 23 feet 9 inches, total length 338 feet 3 inches. Lode 4 feet 6 inches, assaying 2 ounces 1 dwt. 9 grains of gold per ton. No. 2 rise in back of level risen 13 feet 3 inches, total height 36 feet 6 inches. Lode 6 feet, assaying 18 dwts. of gold per ton. The 840 feet level south has been driven 25 feet, total length 377 feet 3 inches. Lode 5 feet 6 inches, assaying 1 ounce 18 dwts. 4 grains of gold per ton. The lode has considerably improved since last report. No. 2 rise in back of level risen 14 feet, total height 47 feet. Lode 1 foot 6 inches, assaying 1 ounce 8 dwts. of gold per ton. The 740 feet level north has been driven 21 feet 6 inches, total length 556 feet. No sample was taken here as we are in the disordered part of lode. The 630 feet level north has been advanced 21 feet 9 inches, total length 663 feet 3 inches. Lode 2 feet, assaying 1 ounce 5 dwts. 2 grains of gold per ton. Winze in bottom of this has been sunk 6 feet 6 inches, total depth 9 feet 6 inches. Lode 2 feet, assaying 1 ounce 3 grains of gold per ton.—Ribblesdale's shaft. This has been sunk 6 feet, total depth 622 feet 6 inches. Lode 1 foot, assaying 1 ounce 4 dwts. 11 grains per ton. The sinking had to be suspended here for four days, in consequence of cutting a stream of water in the 540 north end. The 540 feet level north on west part of fold has been driven 17 feet 6 inches, total length 565 feet 6 inches; no sample from here, as this is arrived to top or northern part of shoot. The 540 feet level south of east crosscut on middle part of fold driven 17 feet 6 inches, total length 34 feet 3 inches. Lode 2 feet, assaying 1 ounce 14 grains of gold per ton. This is now at the bottom of southern part of shoot; hence suspended. The 540 south of crosscut east of 540 south of shaft driven 24 feet 6 inches, total length 171 feet. Lode 4 feet 6 inches, assaying 2 ounces 14 grains of gold per ton. Winze below this level sunk 17 feet 6 inches, total depth 31 feet 6 inches. Lode 3 feet, assaying 1 ounce 15 dwts. of gold per ton. Incline rise south of east crosscut at 440 south of shaft risen 21 feet 3 inches, total height 252 feet 6 inches. Lode 2 feet, assaying 9 dwts. of gold per ton. The 440 feet level north of No. 1 west crosscut at 440 south on middle part of lode driven 14 feet 6 inches, total length 23 feet; no sample; this is suspended. Incline winze north of No. 1 west crosscut sunk 16 feet, total depth 77 feet. Lode 3 feet, assaying 1 ounce 15 grains of gold per ton. The No. 2 west crosscut has been extended 10 feet, total length 43 feet; suspended. Driving north of east crosscut at 340 south 2 feet 3 inches, total length 142 feet 3 inches; no sample; suspended. Driving crosscut east at 340 south 13 feet, total length 13 feet. This is to communicate with the incline rise above 440.—Carmichael's shaft. This is now at its full size to back of 540 feet level. After making the necessary preparation we shall resume the sinking below this level. The 440 feet level north of shaft driven 19 feet 6 inches, total length 22 feet 6 inches. The 315 crosscut west of shaft has been driven 17 feet, total length 776 feet 6 inches. There is no change here.—Rowe's shaft. This has been sunk 9 feet 3 inches, total depth below the 415 feet level 98 feet 9 inches. Lode 1 foot 6 inches, assaying 2 ounces 8 dwts. of gold per ton. Driving north from bottom of 415 south winze driven 18 feet 3 inches, total length 58 feet 3 inches. Lode 1 foot 9 inches, assaying 1 ounce 10 grains of gold per ton. The sinking of the 415 feet north winze has been suspended.—Stopes. Dalyell's shaft. Stope in back of 620 south of 530 south winze cut 15 fathoms 9 inches. Lode 2 feet 6 inches, assaying 18 dwts. 14 grains of gold per ton. Stope in back of 620 north of 530 south winze cut 11 fathoms 2 feet 3 inches. Lode 1 foot 9 inches, assaying 19 dwts. of gold per ton. Stope in back of 620 south of 530 north winze cut 14 fathoms 5 feet 6 inches. Lode 2 feet, assaying 1 ounce 8 dwts. of gold per ton. Stope in bottom of 440 feet south of north winze cut 11 fathoms 4 feet 3 inches. Lode 3 feet, assaying 1 ounce 4 dwts. 9 grains of gold per ton. Stope below 440 feet north of south winze cut 11 fathoms 5 feet. Lode 2 feet, assaying 1 ounce 16 dwts. 4 grains of gold per ton.—Garland's shaft. New stope in back of 840 north of No. 1 north rise cut 9 fathoms 2 feet 3 inches. Lode 2 feet, assaying 1 ounce 8 dwts. of gold per ton. New stope in back of 840 north of No. 1 south rise cut 7 fathoms 1 foot. Lode 3 feet 6 inches, assaying 1 ounce 12 dwts. of gold per ton. New stope in back of 840 south of No. 1 south rise cut 1 fathom 4 feet 6 inches. Lode 3 feet 6 inches, assaying 1 ounce 10 dwts. 4 grains of gold per ton. Stope in back of 740 south of No. 1 north rise cut 5 fathoms 2 feet, suspended. New stope in back of 740 north of No. 1 north rise cut 15 fathoms 4 feet 6 inches. Lode 5 feet 6 inches, assaying 1 ounce 10 grains of gold per ton. New stope in back of 740 south of No. 3 north rise cut 9 fathoms 9 inches. Lode 2 feet, assaying 10 dwts. 6 grains of gold per ton. New stope in back of 740 south cut 7 fathoms 2 feet. Lode 1 foot 6 inches, assaying 5 dwts. of gold per ton. Stope in back of 630 south of No. 3 north rise cut 17 fathoms 1 foot. Lode 1 foot 6 inches, assaying 1 ounce 14 dwts. of gold per ton. Stope in back of 530 north of No. 8 north rise cut 17 fathoms 2 feet 6 inches. Lode 5 feet, assaying 1 ounce 15 dwts. of gold per ton. Stope in back of 530 north of No. 7 north rise cut 6 fathoms. Lode 3 feet, assaying 16 dwts. of gold per ton. Stope in back of 530 south of No. 7 north rise cut 6 fathoms. Lode 3 feet 6 inches, assaying 1 ounce 14 dwts. 8 grains of gold per ton. Stope in back of 530 north of No. 6 north rise cut 9 fathoms 2 feet. Lode 4 feet, assaying 1 ounce 12 dwts. 6 grains of gold per ton. Stope in back of 530 north of No. 2 north rise cut 9 fathoms. Lode 6 feet, assaying 1 ounce 7 grains of gold per ton. Stope in back of 530 south of No. 2 north rise cut 10 fathoms 1 foot 9 inches. Lode 6 feet, assaying 1 ounce 2 dwts. of gold per ton. Stope in back of 530 north of south rise cut 18 fathoms 4 feet 9 inches. Lode 4 feet, assaying 1 ounce 12 dwts. 9 grains of gold per ton. Stope in back of 440 south of No. 7 north rise cut 16 fathoms 2 feet 6 inches. Lode 6 feet, assaying 1 ounce 14 dwts. of gold per ton. Stope in back of 440 north of No. 6 north rise cut 18 fathoms 6 inches. Lode 6 feet, assaying 1 ounce 5 dwts. 8 grains of gold per ton. Stope in back of 440 north of No. 2 north rise cut 11 fathoms 8 feet 6 inches. Lode 3 feet, assaying 18 dwts. 3 grains of gold per ton. Stope in back of 440 south of No. 2 north rise cut 9 fathoms 5 feet 9 inches. Lode 4 feet, assaying 1 ounce 4 dwts. of gold per ton. Stope in back of 440 north of rise south of west crosscut cut 10 fathoms 1 foot 6 inches. Lode 3 feet, assaying 12 dwts. of gold per ton. Stope below 340 north of north winze cut 12 fathoms 3 feet. Lode 6 feet, assaying 16 dwts. of gold per ton. Stope in bottom of 340 south of north winze cut 10 fathoms 2 feet 3 inches. Lode 6 feet assaying 18 dwts. of gold per ton. Stope in back of 240 north of No. 2 north rise cut 10 fathoms. Lode 3 feet, assaying 1 ounce of gold per ton. Stope in back of 240 south of No. 1 north rise cut 15 fathoms 0 feet 3 inches. Lode 3 feet, assaying 1 ounce 0 dwts. 8 grains of gold per ton.—Ribblesdale's shaft. Stope in back of 440 south of No. 2 west crosscut cut 10 fathoms 5 feet 9 inches. Lode 4 feet 6 inches, assaying 1 ounce 4 dwts. 12 grains of gold per ton. Stope in back of 340 south of No. 2 south rise cut 14 fathoms 4 feet 9 inches. Lode 3 feet 6 inches, assaying 1 ounce 8 dwts. 4 grains of gold per ton. Stope on fold at 340 north cut 8 fathoms 5 feet 9 inches. Lode 6 feet, assaying 1 ounce 18 dwts. of gold per ton. No. 1 stope north of No. 2 rise, in back of 240 south, cut 10 fathoms 1 foot 9 inches. Lode 3 feet, assaying 14 dwts. of gold per ton. No. 1 stope south of No. 1 rise, in back of 240 south, cut 7 fathoms 2 feet 6 inches. Lode 4 feet, assaying 1 ounce 4 dwts. of gold per ton. No. 2 stope south of No. 1 rise, in back of 240 south, cut 3 fathoms 1 foot. Lode 6 feet, assaying 1 ounce 18 dwts. of gold per ton. Stope north of No. 1 rise, in back of 240 south, cut 5 fathoms 4 feet 3 inches. Lode 2 feet 6 inches, assaying 1 ounce 13 dwts. of gold per ton. Stope on east part of lode in back of 240 south cut 6 fathoms 1 foot 3 inches. Lode 2 feet 6 inches, assaying 1 ounce 12 grains of gold per ton. No. 2 stope in bottom of 240, north of north winze, cut 7 fathoms 3 feet 6 inches. Lode 4 feet, assaying 1 ounce 6 dwts. of gold per ton.—Rowe's shaft. Stope in back of 315, north of south rise, cut 8 fathoms 1 foot 3 inches. Lode 4 feet, assaying 1 ounce 15 dwts. 2 grains of gold per ton. Stope in back of 315, south of south rise, cut 8 fathoms 2 feet 9 inches. Lode 4 feet, assaying 16 dwts. of gold per ton. The above stoping is for May month.

COROMANDEL.—Superintendent's report for fortnight ending June 1: Prospect shaft, crosscut east from 500 south. This has been advanced during the fortnight 16 feet, its total length being 131 feet. No quartz has been discovered and the ground has become extremely hard for driving. 500 feet level north on new shoot driven 21 feet 6 inches, total 141 feet 6 inches from crosscut. Lode 6 inches wide, assaying 2 dwts. 12 grains of gold per ton. Rise back 500 on new shoot risen 20 feet, total 48 feet 6 inches. Lode is 1 foot wide, and assays 11 dwts. 21 grains of gold per ton. Rise back 440 west of dyke risen by hand labour 2 feet, total 100 feet above level. Lode 3 feet wide, worth by assay 1 dwt. 6 grains of gold per ton.—320 north on new shoot. A machine has been placed to drive the 320 north of No. 2 rise. Lode at starting is 3 feet wide, and assays 2 dwts. 12 grains of gold per ton. 320 north of shaft driven by hand labour 5 feet 6 inches, total 146 feet from shaft. Lode 6 inches wide, assaying 3 dwts. 18 grains of gold per ton. No. 2 rise back 320 risen 15 feet 6 inches, total 50 feet 6 inches. Lode 1 foot 6 inches wide, assaying 5 dwts. of gold per ton. 200 feet level north-east driven 32 feet, total 320 feet from shaft. Reef not yet intersected, but ground is getting easier and letting out a stream of water. 200 feet level north on lode driven by hand labour 4 feet 3 inches, total 22 feet 3 inches. Lode 1 foot 6 inches wide, principally of quartz, which assays 10 dwts. of gold per ton.

GOLD FIELDS OF MYSORE.—Prospecting report for fortnight ending June 1: No. 1 shaft. The 117 level north has been driven 3 feet 6 inches, total 181 feet 10 inches. There is no change in the appearance of the lode, which is about 14 inches wide, and is composed of mixed rock with pyrites thinly disseminated throughout, assaying 9 dwts. 4 grains per ton. The south level has been lengthened 3 feet 5 inches, making its total length 157 feet. The lode is 2 feet 9 inches wide of good looking quartz assaying 1 ounce 3 dwts. 5 grains per ton.—No. 2 shaft. The 100 feet level north winze sinking under the level sunk 2 feet 9 inches, total 5 feet 3 inches. The lode formation is 18 inches wide, but it does not give any ore of value; no sample taken. The south end has been driven 9 feet 9 inches, total 168 feet 9 inches. The productive part of the lode is about 9 inches wide, the assay value of which is 5 dwts. 2 grains per ton.—No 3 shaft. This has been sunk 7 feet 6 inches, total depth 178 feet. The lode is 16 inches wide, and is composed of mixed quartzose and black rock with pyrites thinly scattered throughout, the assay value being 7 dwts. 2 grains per ton. The 117 feet level north has been driven 3 feet 6 inches, total 88 feet 6 inches. The lode is about 18 inches wide of mixed nature, assaying 5 dwts. 2 grains per ton. The end driving south has been extended 5 feet 3 inches, total length of level 185 feet 3 inches. The lode is 18 inches wide, chiefly of stratified schist assaying 13 dwts. per ton.—No. 4 shaft. The 148 feet end north has been driven 1 foot 7 inches, total 73 feet 3 inches. The lode is 16 inches wide and shows pyrites throughout assaying 4 dwts. per ton. The south level has been extended 2 feet 4 inches, total 63 feet 10 inches. The lode is 2 feet wide, assaying 7 dwts. 10 grains per ton.—Air compressor. Building of the house for this has been commenced and will be pushed on with all speed.—Road block north shaft. North end driven 6 feet 6 inches, total 150 feet 6 inches. The end shows about 6 inches of quartz, and having reached the boundary line is suspended. The end driving south has been driven 10 feet 9 inches, total 150 feet 9 inches. The lode formation is 2 feet wide carrying about 3 inches of quartz, which gives by assay 2 dwts. 7 grains per ton.—No. 3 shaft. Crosscut north from shaft driven 10 feet 11 inches, total 24 feet 8 inches, and communicated to the south level from the north shaft.

— Mine report for fortnight ending June 3: Oriental lode, south shaft. The 280 feet crosscut has been extended 12 feet, total 372 feet 3 inches from shaft. Since passing the vein spoken of in my last report there has nothing new been met with, and the ground passing through is of much the same nature as for some time past. The 380 feet end north has been driven 18 feet 4 inches, total 357 feet 7 inches. The lode formation is 4 feet wide, but at present it does not give any quartz of value, and no sample was taken. The 380 feet level south has been lengthened 14 feet 1 inch, total 370 feet 11 inches. This end is now crossing a dyke, and does not give any quartz.—Skiproad and ladderway. Removing of the ladderway has been completed from surface to the 380 feet level, and we are now stripping the shaft between the 380 and 470 feet level for fixing skip road in the same. When this section of the shaft has been completed, we shall then be obliged to stop all hoisting of both stuff and water until the road is finished to surface. All work at the 470 feet level is now suspended, not being able to draw out the water.

HAMPTON PLAINS ESTATE.—The directors have received further letters relating to the supply of both surface and underground water. A letter received by last mail, after referring to the very heavy rain which fell in many parts of the estate, continues as follows:—"Surface water conservation. In one of the creeks the water ran for over a week after the rain ceased. The storm waters which passed along this same creek two years ago this month would have amply supplied Coolgardie, and supplied 500 head of stamps until the present, had there been a possibility of conserving the lot, and although I did not actually see the late rain there, I have every reason to believe it to have been as heavy as it was in May two years ago. The developments are daily showing the increasing good qualities of the clay met with; the holding power of the clay is also well demonstrated by the water in the part filled by the late rains not having receded 1 inch. Since the rain I have been much occupied with the tank sinking.—Boring for deep water. The plant is now at work about a mile east of Brigg's Well, where I again hope to find fresh water from the granite rocks lying to the west.—Pastoral lands. The grass is now springing everywhere, and the bush begins to assume a green colour, quite pleasing to the eye after the protracted period of dry weather we have passed through.—Gold discoveries. The company have received through Messrs. Bewick, Moreing, and Co., by cable, news of the discovery of a gold-bearing reef on Block 48 by a member of their firm, which reef is said to be traceable for upwards of one mile. A gold-bearing reef has also been discovered on Block 59 by some prospectors, who have applied for a reward."

KEMPINKOTE.—Superintendent's report for fortnight ending June 3: Garland's shaft. During the past fortnight we have put in 173 feet of main rods, stays, catch timber, &c., and have sunk 4 feet 3 inches. Total depth from surface 362 feet 6 inches. No alteration. 345 crosscut east has been driven 12 feet 6 inches, total distance from shaft 35 feet 9 inches. A branch of the lode in the end about 2 feet 6 inches wide, assaying 1 dwt. of gold per ton of stuff. On June 1 we put a machine to drive this crosscut. 245 north drive has been driven 24 feet 9 inches, total distance from main crosscut 255 feet. We are carrying about 4 feet of footwall part of the lode, assaying 2 dwts. 21 grains of gold per ton of stuff. The drivage of this has been suspended. We have started a winze in the main end by hand labour. 245 south drive has been driven 28 feet 3 inches, total distance from main crosscut 238 feet. We are carrying about 5 feet of the footwall part of the lode, assaying 15 grains of gold per ton of stuff. 245 No. 1 crosscut west, 100 feet south of main crosscut, has been driven 20 feet, total distance from footwall 26 feet. The whole of this distance has been driven through the lode. The lode in the end is the full width of the drive, assaying 1 dwt. 16 grains of gold per ton of stuff. Henty's shaft has been sunk 6 feet 6 inches, total depth from surface 308 feet. No change. 268 south drive has been driven 22 feet 9 inches, total distance from crosscut 172 feet 9 inches. At this point we met with the footwall part of the lode, assaying 2 dwts. of gold per ton of stuff. 173 north drive has been driven 5 feet 3 inches, total distance from shaft 94 feet 6 inches. We are carrying about 5 feet of the hanging wall part of the lode, showing a trace of gold.—Prospecting Big Pit, No. 10 trial pit, south-east corner Big Pit. Drive south 43 feet from surface has been drive 9 feet 6 inches, total distance from shaft 87 feet. Lode in the end 4 feet wide, assaying 1 dwt. 7 grains of gold per ton of stuff. We stopped the drivage of this, and put the coolies to sink a trial pit in the south-west corner of Big Pit, and sunk 33 feet, when we unbottomed the old workings, and work was suspended. —Trial trench 1850 feet north of Henty's. After sinking this to a depth of 13 feet we unbottomed the old working. Nothing of value was met with, and we ceased operations.

LINARES.—Mine report, dated June 19: Pozo Ancho Mine. The 200 fathom level driving south of Peili's engine shaft. The men are getting on well with this work. In the 200 west of the same shaft the lode contains some stones of ore, and is valued at ¼ ton per fathom. The lode in the 155 west is regular and looks promising, and is worth ½ ton per fathom. In the 178 west of Warne's crosscut the lode looks more promising, and turns out good stones of ore. It is now estimated at ¾ ton per fathom.—No. 278 winze sinking below the 130 fathom level. The lode is large, but is without value.—Los Quinientos Mine. Taylor's engine shaft. In the 185 east the lode is small and poor; the end at present is passing through a barren bar of ground. The lode in the 165 east is not quite so rich as it has been, but continues to open up splendid stoping ground. It is now valued at 4 tons per fathom. In the 150 east the lode is wide and strong, consisting of carbonate of lime, with occasional stones of ore. The 130 east is looking a little more promising than it has been for some time, and is now estimated at ½ ton per fathom.—Isidoro's winze below the 150 fathom level. This winze is now completed to the 165 fathom level, and has gone through a fine shoot of ore. It is valued at 5 tons per fathom.

LADY LOCH.—The manager, under date May 20, writes as follows: I am glad to report more favourably this week. I have had to stop all development in the west drive as we cannot keep the quartz clear, owing to the large quantity, and the men cannot work when the drive is choked up. East drive driven 11 feet for the week, making total 45 feet from shaft, exposing 3 feet of good quartz. The further we get in the better the gold is getting, and, of course, the further we go we get into deeper ground, as we are driving into a hill. I am putting a great deal of faith in the winze which will be sunk after we reach the 100 feet. West drive driven 1 foot, making 52 feet from shaft, exposing 7 feet of quartz, carrying gold. Main shaft (contractors) sunk 3 feet for the week, making 91 feet from brace. Contractors are making slow progress on account of the hard bar of country, but I am glad to say that even this hard bar is full of quartz and pyrites, and I have seen a little fine gold in the quartz and have every faith in cutting good gold at about 180 feet, possibly less. Plans of leases I hope to forward you next week.—Lady Forrest. There is little or no change to report, but the men are making very good progress, the distance sunk for the week being 10 feet, making total 36 feet from surface. The country is getting softer, and I expect to make still better progress during the coming week.—Lady Forrest North. I am at work in two prospecting shafts—one on the south boundary and one on the north. No. 1 south, 6 by 3, is sunk on the junction of three reefs—viz., two running north and south, and one east and west, but in my opinion these reefs will make into one at a depth. This shaft is now down 21 feet from surface, and at present there is fully 3 feet of quartz in the bottom, and the deeper we get the stone is of a more favourable nature. I am of opinion that this is the Lady Forrest reef, or, if not, will shortly lead to it. No. 2 shaft north is sunk on the underlay, and is now down 14 feet on a very strong reef, composed of ironstone and quartz. I will continue this shaft to about 30 feet, and then expect to cut the reef.

ROYAL OAK OF HAURAKI.—It is notified that the transfer books will be closed from 2nd to 16th July. The following are extracts from the manager's report, dated May 25. Mynpachts. I have thoroughly sampled all the reefs on both, and done a considerable amount of panning. As a lot of work has already been done in cuts and vertical shafts, &c., we have not found it necessary to follow on the same lines. I have no doubt Mr. Dorsey will approve the steps I have taken to explore the reef, showing the largest quantity of free gold (on the large mynpacht), at a depth of about 100 feet. By going still deeper after striking this reef, with so good a show, we should catch the reef, which does not give much of a prospect on the surface; but is certainly in one of the best and truest formations in South Africa. So far I have not seen its equal. Reef No. 5 was struck by means of a crosscut in the vertical shaft. The ore—a sample of which I am getting assayed—is much of the same character I saw when on the adjoining property to the Robinson some months since, I have contracted with Frazer to continue this shaft to a depth of 100 feet. I hope to be able to report progress at a very early date.

BRITISH BROKEN HILL PROPRIETARY.—Mining manager's report for the week ending May 1:—Blackwood (No. 1) shaft, 240 feet level. Uprise started in east crosscut risen 8 feet, total height 10 feet, and stopped at this point, as lode is patchy. Have commenced a south drive off plat, and driven same 7 feet, face showing about 3 feet of sulphide ore. We mined 2 tons sulphide ore assaying 14 per cent. lead, 27 per cent. zinc, and 18 ounces silver per ton. —Howell (No 2) shaft, 300 feet level. North-east drive lengthened 7 feet, making total distance 217 feet, and stopped as we are now into country again, having passed through lode at a point about 17 feet back from present face, which, however, only proved to be from 4 to 5 feet wide, and very much disturbed. Have started a west crosscut from plat, and lengthened some 7 feet, so far through country rock. South-west drive off west crosscut advanced 17 feet, total length 35 feet, face showing fair sulphides. We mined 24 tons sulphides; average 23 per cent. lead, 23 per cent. zinc, and 15 ounces silver per ton.—240 feet level. Southerly drive off east crosscut down far north winze driven 12 feet, total 20 feet, and stopped, as face got into lode matter of no value. We broke 8 tons sulphides; average, 45 per cent. lead, 17 per cent. zinc, and 5 ounces silver per ton. Have started a south-west drive in about 6 feet from winze to prove lode in this direction.—100 feet level. Good progress has been made in uprise from far north stopes. Are now on top of ore body, and are in soft mullock. Expect to hole through to surface very shortly.—Marsh (No. 6) shaft, second level. Have been cutting down part of old winze in main south drive, and timbering same in order to facilitate sinking operations on lode in west crosscut down winze. We broke 13 tons carbonate, assaying 31 per cent. and 33 ounces, and 4 tons, assaying 20 per cent. lead and 16 ounces silver per ton. The tributors on this level have broken 8 tons carbonates; average, 28 per cent. lead, and 54 ounces silver per ton.—Retallick's workings. Tributors down winze in north drive have mined 11¾ tons carbonates, assaying 30 per cent. lead and 49 ounces silver per ton. Assays for the week vary—carbonates from 14 to 58 per cent. lead, and 1·6 to 103 ounces silver per ton; sulphides, 16 to 45 per cent. lead, 17·9 to 28·2 per cent. zinc, and 6·5 to 19·9 ounces silver per ton.

— Mining manager's report for the week ending May 15: Blackwood (No. 1) shaft. 240 feet level east crosscut started off end of south drive was put in 12 feet through hard mineralised country. North drive was lengthened 11 feet, total length 18 feet; face showing some good grade sulphides, which, however, carries patches of quartz occasionally. We broke 2 tons sulphides, averaging 20 per cent. lead, 21 per cent. zinc, and 18 ounces silver per ton.—Howell (No. 2) shaft. 300 feet level west crosscut lengthened 18 feet, total distance 40 feet; face showing garnet, sandstone, and sulphides, which is getting somewhat harder. South-west drive off west crosscut driven 9 feet, making total length 54 feet; face in low grade sulphide and sandstone. 240 feet level south-west drive lengthened 19 feet, total length 46 feet; face still in soft sulphide ore, but of low grade. We mined 45 tons sulphide, averaging 38 per cent. lead, 6 ounces silver, and 18 per cent. zinc.—Marsh (No. 6) shaft, second level, Fossicking operations have been carried on around bottom of winze down west crosscut, from which we broke 22 tons carbonate ore, averaging 21 per cent. lead, and 37 ounces silver, and 5 tons 19 per cent. lead, and 20 ounces silver per ton. The tributors broke 16½ tons, averaging 21 per cent. lead, and 47 ounces silver per ton.—Retallick's workings. The tributors down winze in north drive broke 5½ tons carbonates, averaging 28 per cent. lead, and 31 ounces silver per ton. The week's assays vary. Carbonates from 8·5 to 40·5 per cent. lead, and 11·9 to 120·2 ounces silver per ton. Sulphides from 2 to 41 per cent. lead, 7·8 to 26·45 per cent. zinc, and 2·2 to 22·2 ounces silver per ton.

NEW CRŒSUS (THE).—This week the New Crœsus started on its new career, with a plant which is not only designed for work upon a very large scale, even for these fields, but which is a model of what so important a plant should be. Sixty stamps will be running to-morrow morning at the latest, and it may be taken for granted that the New Crœsus will then have entered upon a very prosperous career. This is merely the beginning of things, however, for it is not to be supposed that a property which comprises nearly 250 reef claims is going to be worked out with only 60 stamps. As readers of the *Star* were informed last March, the milling power is to be increased to 120 stamps in the first place, and will eventually be brought up to a total of 200 stamps. It is clear that with so long a stretch of working face as that possessed by the company, and with a crushing return of nearly 300,000 tons per annum, the working expenses should be brought down to as low a figure as that of any company on the Rand. The life of the property was calculated in the March article of the *Star* at some 37 years, with some 120 stamps, or, according to the actual figures, 6,800,0000 tons were available as reserves. According to an estimate made at a later date by Mr. Sydney Farrar, who was engaged to make an independent report for the company, the reserves were about 7,906,000 tons. This latter estimate was based upon the very careful measurements which he was enabled to make. Assuming the calculation to be correct, the life of the mine works out at about 27 years, with 200 stamps, after deducting an amount of about 100,000 tons already named in the Crœsus, Star, and Western Langlaagte sections. Later measurements still show that the reserves will probably be much greater. The average working thickness of the Main and South reefs as taken quite recently, is as follows:—Main reef 4 feet 3 inches, and South reef 2 feet 6 inches, or a total working thickness of nearly 7 feet, or about a foot more than the average measurement in Mr. Farrar's report. This will make an important difference in the question of the life of the mine, and it appears that a term of 30 years, as anticipated by the management, is tolerably near the correct figure. It may be objected, as it has been by some, that it is of little use to attempt to work out the life and value of a property by taking average thicknesses, and average dips, and average milling value; but since it is absolutely necessary that investors should be able to know approximately the amount of risk they have to face, the practice is sure to be commended. It is quite possible to form a fairly good minimum estimate of the value of a banket property, and if this may be done it would clearly be foolish to neglect doing it. It has been shown that there is every reason to believe that the Crœsus has a life of 30 years—it may be more; it will not, in all probability, be much less. Investors can calculate for themselves what they are justified in paying for the stock according to the figures given. With regard to ore value, the most recent assays show a return of nearly 15 dwts. per ton, taking the milling proportions at one-third of South reef to two-thirds of Main reef. The directors are confident that they will be able to obtain a profit of 15s. per ton on the operation, as was anticipated by Mr. W. H. Adler at the meeting in March last. There does not appear to be any reason why they should not, so far as the assays go. This means that an annual profit of about £225,000, or nearly 50 per cent. on the capital of £500,000, should be returned. The proposition for the investor is this, therefore:—What is the value of an annuity of £225,000 for 30 years at the particular rate of interest which I am willing to accept for my money in view of the risks to be provided for? The annuity will be deferred for a year or two, but that will make little difference in round figures. It may be mentioned, in conclusion, that there are about 270,000 tons of ore developed, and it is on this quantity that the averages above given have been worked out.—(From the *Star* of Johannesburg, June 1.)

NEW PRIMROSE.—A most important development has taken place at this mine during the last few weeks. The north reef, which has hitherto been an unknown quantity in the western section of the mine, having been cut out in the upper levels by a dyke, has been found at both the 9th and 10th levels 8 feet wide, assaying 17 dwts. To understand the importance of this, it will be as well to detail the various reefs worked throughout the mine. The property is divided into three sections—the western, in which the main shaft is situated; the central, opened by the Moss Rose shaft; and the eastern, exploited by the old May Deep shaft. In the eastern section only the North reef has, up to the present, been worked, the Main reef being generally of poor grade. Going west, however, recent developments have opened up a section of Main reef of very fair value, which will pay to work. In the central or Moss Rose section the North reef (4 feet wide), Main reef (2 feet to 2 feet 6 inches wide), and Middle reef (2 feet wide) are all worked, giving a total stoping width of about 8 feet 6 inches. The North reef especially is a fine body of ore, and yields systematically good grade rock. This is the reef which has now been discovered farther west. Until recently only two ore bodies were worked in the western section, viz., the Main and Middle reefs. Both of these, however, are of good width, and an average of 10 feet of ground has been taken out west of the main shaft. The Main reef is poor in places, and very low grade stuff is left standing, as with the economical management at this mine any ore of an assay value over 5 dwts. per ton can be made to yield a profit, only the lowest grade ore is left in the stopes; 7 dwt. rock returns good profits. From the surface down to the 8th level the north reef, worked in the central section, has been missing, having apparently been cut out by the action of a big flat dyke which lies at the back of the reef plane, and has come in and destroyed the ore body. A large amount of prospecting work was done to find in the upper levels without avail. A crosscut recently put in, however, from the 9th level has struck the North reef, which is found at that point to be a fine body of banket fully 8 feet wide, and yielding average assays of from 17 dwts. to 18 dwts. per ton. It has been opened for a length of 224 feet on this level, so there is no question as to its being a permanent body, and not merely a small piece of reef left standing by accident. It has also been cut in the 10th level 120 feet further down on the incline; but, curiously enough, instead of being some distance to the north of the Middle reef, as in the level above, it is close to it, there being a parting of only about 12 inches of sandstone. Here it is 6 feet thick, assaying about 18 dwts. The question now arises, what has become of the dyke that so disturbed and destroyed the reef in the upper levels? Has it disappeared at the back of the reef plane, or has it merely taken a temporary curve, to return and again cut out the North reef lower down? In the solution of this problem it is useful to know that the North reef is intersected in the Rose Deep shaft immediately south of the Primrose Drain shaft, and opposite the point it has been crosscut to on the 9th level. In the Rose Deep Level Mine it is 5 feet thick, assaying from 10 dwts. to 25 dwts. In view of this it is not unreasonable to conjecture that the North reef will be found, irrespective of other disturbing causes, to continue in depth in this part of the mine, especially as no dyke corresponding to the intrusion which destroyed it in the upper levels has yet been identified in the Rose Deep. Turning now to the commercial aspect of this discovery, although it is impossible to make any definite estimate of the value of the reef, owing to the short distance it has yet been driven on, it may be generally stated that it extends laterally throughout this section of the property it will give an extended life to the mine, and provide a source from which good grade ore can always be taken. The general development of the mine is proceeding well. The three shafts are being sunk, the main incline being well on its way to the 11th level. Winzes are also being put down from the 9th level, which is connected from one end of the mine to the other, and everything throughout is in ship-shape order. We have the authority of the manager, Mr. George Starr, for stating that from assays taken in the shafts, along the small length driven on the middle reef upon the 10th level, and from the winzes going down from the 9th to the 10th level, a general all-round improvement is indicated in the quality of the ore, the middle reef here being of excellent quality. It is gratifying to have so frequently to record the economic basis upon which all working is carried out at this mine. Last month's working expenses, including development and cyaniding, were given at 20s. a ton. Managers of some other mines have called in question the accuracy of these figures, and for their information we now give a detailed schedule of the different items of expenses:—

Mining.—24,828 tons mined.

	s.		Per cent.
Mining	6·534	=	42·92
Developing (hand)	2·164	=	14·12
Development (machine)	3·149	=	20·64
Pumping and hauling	1·580	=	10·36
Tramming (underground)	0·896	=	5·88
Tramming (surface)	0·229	=	1·44
Maintenance, &c.	0·708	=	4·64
	15·260	=	100

Milling.—24,568 tons milled.

	s.		Per cent.
Crushing and sorting	0·230	=	11·38
Milling	1·618	=	80 38
Maintenance, &c.	0·166	=	8 24
	2·014	=	100

Cyaniding.—16,736 tons treated.

	s.		Per cent.
Filling and discharging	0·721	=	17·79
Labour	3·053	=	75·31
Maintenance	0·280	=	6·90
	4·054	=	100

The cyanide expenses are calculated upon the basis of 16,736 tons of tailings treated, being the product of 24,568 tons of ore milled, 30 per cent. of the pulp being temporarily lost in slimes. To arrive at the true cost per ton cyaniding bears to the quantity of ore reduced it will be necessary to take the total expenses for cyaniding —viz., £3395, and divide it by the tonnage crushed—viz., 24,568 tons. This gives a cost of 2·760s. per ton, which is manifest the right way in which to calculate the cost per ton of ore treated. So many tons of ore are reduced, so much gold extracted, at a certain figure. The cost per ton is the number of tons reduced divided into the total expenses for the month. For April the expenses at the Primrose were, therefore, as follows:—

	Per ton.
Mining	15·260s.
Milling	2·014
Cyaniding	2·760
Total	20 034s.

It will be noticed that all calculations are made in shillings and decimals of shillings. A very complete table is being compiled for the general report, showing each individual item of expense in connection with the working of this mine, which should be of general interest. A breakdown occurred at the Moss Rose shaft a few days since to the winding engine, which caused a short delay. This will probably show itself in the output for May. A new winding engine is being erected. The erection of a further 40 stamps is not yet actually decided upon, as Mr. Barnato, upon his return, is to have the honour of announcing this new extension of the plant. Mr. George Starr, the manager, has certainly taken front rank on these fields for the manner in which he has administered this company; and Mr. Hammond, as consulting engineer, adds this mine to his long list of successes. Mr. Perberthy, the mine geologist, has compiled some very excellent plans of the property. The Primrose is one of the best and most economically managed mines on the fields. The discovery of the north reef in the western section, 9th level, and the good quality of the ore now being opened in the winzes and shaft going down to the 10th level, promise at least a steady, if not an increased, output in the future. It is pretty certain that 40 new stamps will soon be erected. There are 240,000 tons of ore in sight. Mr. Barnato is coming home again.—(*Standard and Diggers' News*, Johannesburg, June 1.)

OOREGUM.—Mine report for fortnight ending June 3: Taylor's shaft sunk 14 feet 6 inches, total depth below the 760 feet levels 17 feet. Lode 7 feet wide, assay value 3 ounces 13 grains. We propose sinking 5 feet more, making it 22 feet below the 760 feet level before cutting the plats, which will be excavated from the hanging on western side of shaft, and of sufficient area for shoot passes for filling skips. The 760 feet level south advanced 2 feet, total 32 feet. Lode 4 feet 6 inches wide, assay value 3 ounces 5 dwts. 8 grains. The 760 feet level north driven 2 feet 6 inches, total 31 feet 6 inches. Lode 3 feet 6 inches wide, assay value 2 ounces 4 dwts. 15 grains. The 660 feet level south driven 34 feet 3 inches, total 317 feet 3 inches. Lode 1 foot wide, assay value 16 dwts. 8 grains. No. 1 winze, 660 feet level south, sunk 6 feet 6 inches, total 26 feet 6 inches. Lode 2 feet 9 inches wide, assay value 13 dwts. 2 grains. No. 2 winze, 660 feet level south, commenced, sunk 4 feet. Lode 4 feet 6 inches wide, assay value 2 ounces 5 dwts. 7 grains. The 560 feet level south driven 20 feet, total 515 feet. Lode 2 feet wide, assay value 2 ounces 5 dwts. 8 grains. No. 2 winze, 560 feet level south, sunk 5 feet, total 61 feet. Lode 2 feet 6 inches wide, assay value 2 ounces 3 dwts. 3 grains. No. 3 winze, 560 feet level south, sunk 4 feet, total 31 feet 6 inches. Lode 1 foot wide, assay value 1 ounce 6 dwts. 2 grains. No. 4 winze, 460 feet level south, sunk 7 feet 6 inches, total 96 feet. Lode 2 feet wide, assay value 13 dwts. 2 grains. Communicated with 560 feet level south. The level north from back of No. 4 rise, 280 feet level south, driven 7 feet 6 inches, total 128 feet 6 inches. Lode 3 inches wide, assay value 7 dwts. 15 grains suspended. Wallroth's shaft sunk 11 feet 9 inches, total 1054 feet. Branch of quartz 9 inches wide, assay value 6 dwts. 12 grains. The 960 feet level south driven 24 feet 3 inches, total 184 feet 6 inches. Lode 1 foot wide, assay value 8 dwts. 17 grains. No. 1 winze, 960 feet level south sunk 6 feet 6 inches, total 13 feet. Lode 3 feet 6 inches wide, assay value 10 dwts. 21 grains. The 960 feet level north driven 12 feet 6 inches, total 100 feet 6 inches. Lode very small, no sample taken. The 860 feet level south driven 20 feet 6 inches, total 495 feet. Lode 2 feet 6 inches wide, assay value 5 dwts. 10 grains. No. 2 winze 860 feet level south sunk 6 feet 6 inches, total 45 feet. Lode 1 foot wide, assay value 4 dwts. 8 grains. No. 3 winze 860 feet level south sunk 7 feet, total 12 feet. Lode 1 foot 6 inches wide, assay value 12 dwts. The 860 feet level north driven 16 feet, total 278 feet 6 inches. Lode 2 feet wide, assay value 7 dwts. 15 grains. No. 1 winze 860 feet level north sunk 7 feet, total 70 feet 6 inches. Lode 1 foot 6 inches wide, assay value 4 dwts. 8 grains. The 760 feet level south driven 34 feet, total 644 feet 6 inches. Lode 9 inches wide, assay value 8 dwts. 17 grains. No. 2 winze 760 feet level south sunk 4 feet 6 inches, total 47 feet 6 inches. Lode 9 inches wide, assay value 10 dwts. 20 grains. No. 3 winze 760 feet level south commenced, sunk 4 feet 3 inches. Lode 2 feet wide, assay value 15 dwts. 9 grains. The 760 feet level north driven 7 feet 9 inches, total 338 feet. Lode contracted. No sample. No. 2 winze 760 feet level north sunk 6 feet, total 41 feet 6 inches. Lode 1 foot 6 inches wide, assay value 9 dwts. 19 grains. No. 4 winze 660 feet level south sunk 5 feet 3 inches, total 82 feet 6 inches. Lode small. No sample. No. 5 winze 660 feet level south sunk 2 feet, total 104 feet 9 inches. Lode 9 inches wide, assay value 6 dwts. 12 grains. No. 7 winze 660 feet level south sunk 7 feet, total 22 feet 3 inches. Lode 3 feet 6 inches wide, assay value 1 ounce 9 dwts. 9 grains. Incline winze 360 feet level south sunk 14 feet 6 inches, total 54 feet. Lode 4 feet 6 inches wide, assay value 15 dwts. 19 grains. The 280 feet level north of fold driven 13 feet, total 246 feet. Lode 4 inches wide, assay value 4 dwts. 8 grains. The Incline winze on point of fold 280 feet level north sunk 1 foot 3 inches, total 134 feet 10 inches. Lode 4 inches wide, assay value 6 dwts. 12 grains, communicated with crosscut east from 360 feet level north. No. 5 winze 215 feet level north sunk 6 feet 6 inches, total 42 feet. Lode 1 foot wide, assay value 4 dwts. 10 grains.—Low's shaft. The 710 feet level south. The men are still engaged cutting plat, which will be completed in a few days, when both sinking and driving will be resumed. The 610 feet level south driven 5 feet 6 inches, total 248 feet 6 inches. Lode 4 inches wide, assay value 4 dwts. 8 grains. The 610 feet level south driving north on lode from point of intersection, driven 7 feet, total 79 feet. Lode 8 inches wide, assay value 15 dwts. 6 grains. No. 1 winze 610 feet level south sunk 7 feet, total 24 feet. Lode 3 feet wide, assay value 14 dwts. 19 grains. Probyn's shaft sunk 4 feet, total 1097 feet. The 1050 feet level south driven 4 feet, total 64 feet 6 inches. No lode, No. 1 winze 1050 feet level north sunk 4 feet 9 inches, total 39 feet 9 inches. Lode 6 inches wide, assay value 10 dwts. 20 grains. No. 1 winze 950 feet level south sunk 3 feet, total 83 feet. Lode 1 foot wide, assay value 5 dwts. 10 grains. We would here remark that the No. 2 air compressor has been stopped for one week for necessary repairs, which accounts for the small amount of work accomplished for this report both at Low's and Probyn's shafts.—Stopes for month, Taylor's shaft. Stoping side of 660 feet level south 3 fathoms. Lode 3 feet wide, assay value 1 ounce 7 dwts. 5 grains. Bottom of 560 feet level south stoped 12½ fathoms. Lode 3 feet 6 inches wide, assay value 1 ounce 12 dwts. 3 grains. Bottom of 460 feet level south stoped 37½ fathoms. Lode 3 feet 10 inches wide, assay value 1 ounce 3 dwts. 31 grain. Bottom of 360 feet level south stoped 25¾ fathoms. Lode 4 feet 10 inches, assay value 17 dwts. 19 grains. Bottom of level south from back of No. 4 rise 280 feet level south stoped 2½ fathoms. Lode 2 feet wide, assay value 1 ounce 13 dwts. 18 grains.—Wallroth's shaft. Back of 660 feet level south stoped 11½ fathoms. Lode 2 feet 6 inches wide, assay value 1 ounce 3 dwts. 22 grains. Bottom of 660 feet level north stoped 7 fathoms. Lode 3 feet wide, assay value 14 dwts. 4 grains. Bottom of 560 feet level south stoped 13½ fathoms. Lode 5 feet 2 inches wide, assay value 2 ounces 3 dwts. 16 grains. Back of 560 feet level south stoped 47½ fathoms. Lode 2 feet 6 inches wide, assay value 1 ounce 18 dwts. 2 grains. Bottom of 560 feet level north stoped 5 fathoms. Lode 2 feet 6 wide, assay value 1 ounce 10 dwts. 12 grains. Bottom of 460 feet level south stoped 42½ fathoms. Lode 2 feet wide, assay value 1 ounce 5 dwts. 9 grains. Back of 460 feet level south stoped 7¾ fathoms. Lode 2 feet 6 inches wide, assay value 2 ounces 3 dwts. 13 grains. Bottom of 460 north stoped 3¾ fathoms. Lode 1 foot 6 inches wide, assay value 2 ounces 13 dwts. 18 grains. Bottom of 360 feet level south stoped 30½ fathoms. Lode 2 feet 3 inches wide, assay value 1 ounce 4 dwts. 18 grains. Back of 360 feet level south stoped 1½ fathom. Lode 1 foot 6 inches wide, assay value 2 ounces 3 dwts. 3 grains. Bottom of 360 feet level north stoped 3½ fathoms. Lode 3 feet wide, assay value 2 ounces 1 dwt. 9 grains. Bottom of 280 feet level south stoped 5¾ fathoms. Lode 3 feet wide, assay value 14 dwts. 4 grains. Bottom of 215 feet level south stoped 4¾ fathoms. Lode 1 foot wide, assay value 5 dwts. 10 grains. Bottom of 215 feet level north stoped 14½ fathoms. Lode 1 foot, assay value 1 ounce 10 dwts. 18 grains.—Low's shaft. Bottom of 510 feet level south stoped 8 fathoms. Lode 5 feet wide, assay value 1 ounce 1 dwt. 19 grains. Bottom of 430 feet level south stoped 9¾ fathoms. Lode 1 foot 3 inches wide, assay value 1 ounce 4 dwts. 12 grains.—Probyn's shaft Back of 650 feet level south stoped 2 fathoms. Lode 1 foot 6 inches wide, assay value 7 dwts. 15 grains. Back of 450 south stoped 2 fathoms. Lode 6 inches wide, assay value 2 ounces 6 grains.—Exploratory work, Wallroth's shaft. A crosscut east from 460 feet level south commenced, driven 4 feet. This is being driven with the view of intersecting the lode on which we are sinking the incline winze to the east of the 360 feet level south. The crosscut east from 360 feet level north commenced, driven 10 feet 3 inches, which holed to incline winze on point of fold from 280 feet level north, therefore suspended. The crosscut east from 280 feet level south driven 31 feet 3 inches, total 300 feet. The crosscut west from 280 feet level south driven 33 feet 6 inches, total distance 577 feet. The crosscut east from 215 feet level north driven 4 feet, total 13 feet 6 inches, no discovery, suspended.—Probyn's shaft. The level north from crosscut east 450 feet level south driven 5 feet 6 inches, total 71 feet. Lode 3 inches wide, assay value 8 dwts. 17 grains. Trial shaft for water at north-eastern part of the property sunk 40 feet 9 inches. During the month of May we crushed 4321 tons of quartz, which produced 5032 ounces of gold. In addition to this, 5002 tons of tailings were treated, which yielded 1014 ounces of gold, total return 6046 ounces of gold.

MOUNT ZEEHAN (Tasmania).—Manager reports for week ended May 14: Silver Queen section. No 4. shaft, No. 8 lode. Sinking resumed, and shaft sunk 5 feet 6 inches, total below No. 1 level 13 feet 6 inches. The No. 1 level north has been extended by the tributers 4 feet 6 inches, total 111 feet. Lode maintains its value, and carries fully 1 foot of first-class ore in the sole, and for a height of 2 feet. Above this there are 6 inches first, and the balance in seconds. Cannot yet say width of lode, as there is ore on each side of drive. Machinery is working splendidly.

MOUNT LYELL.—The London board have received the following report from the Melbourne board for the week ending May 8:—Surface prospecting shaft, banging-wall. This shaft has been sunk on the underlie of the pyrites 11 feet, total 31 feet. The soft grey material overlying the pyrites is continuing down, and assays well for gold and silver.—North drive No. 3 tunnel. This drive has been advanced 9 feet, total 159 feet. There is no change to note.—Indicator winze. The winze has been sunk 3 feet, total 107 feet. The country continues hard.—North drive, No. 4 tunnel. The face has been advanced 5 feet, total 151 feet. Country tight schist rock.—No. 1 crosscut, north drive, No. 4 tunnel. The crosscut has been driven 3 feet, total 6 feet. The face is all in pyrites.—No. 1 crosscut, south drive, 50 feet level, engine shaft, No. 4 tunnel. A crosscut has been started at a point 108 feet from the shaft, to cut into the pyrites; in stripping the same a thin vein of auriferous schist has been met with. This vein is apparently the flookan or seam dividing the pyrites from the country rock.—No. 1 rise, south drive, 50 feet level, engine shaft, No. 4 tunnel. The rise has been put up 2 feet, total 40 feet. There is no change.—North drive, 100 feet level, engine shaft, No. 4 tunnel. The face has been advanced 2 feet, total 122 feet. The pyrites are very hard, and bad for breaking.—South drive, 100 feet level, No. 2 shaft. This drive has been advanced 2 feet, total 29 feet. There is no improvement.—No. 5 tunnel. The contractors have driven 2 feet for the week, total 1019 feet. The country is very hard ferruginous conglomerate.—Progress report for the week ending May 8:—Abt line. Bridge over Queen river will be completed to-night, and rails laid across to-morrow. The whole of the earthworks, including station yard and road diversions, are completed, and rails laid the whole length ready for traffic. Expect to run trial trip with engine on Thursday. (A later communication by wire advises that the trial trip was satisfactory.)—Through tram. Everything ready for platelaying, which will shortly be started.—Haulage line. Earthworks, including big bank and cutting, completed from junction of through tramway to bank engine site, and bridge at 40 chains in progress. Bank engine site and station yard well in hand; engine shed and foundations in progress; earthworks from bank engine site to West Lyell shaft on mine side completed.—Smelter site. Making good progress, and ground becoming more favourable.—Brick and sawmill plants. Running full time. Weather broken and changeable.

MYSORE WEST AND MYSORE WYNAAD CONSOLIDATED.—Tank Block. The mining manager (Mr. P. Bosworth Smith) reports by mail for the month of May, as follows: South shaft. The pumping engine was stopped from the 21st to 24th inst. to reset main rods. We have taken out the sweep rod and dolly wheels that were sources of great trouble and anxiety, and have replaced these by a stiff elbow joint working with a filling piece on a large cast iron roller. The pumps were started again on 24th, and showed a great improvement in their working. The water was out on 26th inst.—450 level south. After survey it was found that owing to a bend in the lode we were still 15 feet away from the boundary. Work was resumed, and the level driven up to boundary where we shall crosscut, total distance driven 152 feet 9 inches, progress 44 feet 9 inches. The lode is full width of level at boundary, but although there is from 5 to 6 feet of quartz, there are great loose boulders of black rock, with clay joints forming a considerable portion of the lode. We shall crosscut, and hope to get more quartz behind these. The quartz is worth 1 ounce per ton. 450 south crosscut east driven to 14 feet, progress 6 feet: as no further branch was struck, crosscut was stopped and rise started. 450 south rise at 60 feet was carried up to a distance of 65 feet in 20 days. The quartz is very flat, and the 65 feet in rise does not represent more than 20 feet in vertical height. The lode is widening, and is now going up at a steeper angle; quartz is 5 feet wide in end, and is worth 15 dwts. per ton. 450 north level has been driven to a distance of 146 feet 6 inches, making a progress for month of 53 feet. The end is still composed of loose bands of black rock and quartz, but the proportion of the latter is increasing, and the lode seems settling down, and getting back towards its normal direction. The quartz is worth 4 dwts. per ton. 450 north rise was continued for 3 feet 9 inches, total 17 feet 6 inches, and then as the quartz seemed to be turning over, a crosscut was started from the level. 450 north crosscut east driven to 36 feet, progress 36 feet. The quartz in this has gradually narrowed down, and finally pinched out; we shall go back to where the quartz was in roof of level, and follow the quartz up in a rise if the lode goes up here. The last quartz here was worth 4 dwts. per ton. 400 north level driven to 346 feet, progress 27 feet 6 inches: no change in end.—354 level. No. 1 stope quartz is 14 inches wide, and worth 10 dwts. No. 2 stope quartz is 1 foot 6 inches wide, and worth 1 ounce 5 dwts. No. 3 stope is 2 feet wide, and worth 15 dwts. No. 4 stope is 2 feet wide, and worth 12 dwts. per ton. Mill ran 590 hours, crushed 395 tons of ore, which yielded 264 ounces of bar gold; tailings assayed 2 dwts. 12 grains.

TASMANIA CROWN SILVER.—Extract from manager's reports: May 2. No. 2 lode north. I am very pleased to tell you that a very favourable change has come. The lode has widened out to 5 feet in width. There is on the footwall a vein of first-class ore from 4 inches to 7 inches, followed by about 2 feet of mullock, and the rest (2½ feet) of good concentrating ore. The vein on the footwall has widened out to 7 inches, and is likely to further develop itself. The character of the ore and general appearance of the lode is so similar to that on which the tributers are working that we think it will prove to be the same lode. If this shoot of ore only continues a few hundred feet we shall soon alter the state of things, and it will be far pleasanter and easier to write reports. Royalty on ore sales by tributors during the month of April, £47 13s.—May 10. I confirm cablegram sent you on the 8th inst.:—"The lode No. 2 going north has considerably improved." The favourable appearances continued until yesterday, when evidences of a change occurred, and to-day we have driven against a slide which has cut the lode off. I hope before long to be able to report that we have again picked it up, and that it continues to be a good profitable lode.—May 16. I am very pleased to report that the slide referred to in my last only disturbed the position of the lode about 5 feet The ore, instead of being on the footwall, is now on the hanging wall. The ore-bearing part is from 10 inches to 12 inches wide, of first-class metal, besides some seconds. In order to make room on dressing floors I have sold 11 tons fines, which sampled 37½ ounces silver and 34 per cent. lead, and realised £30 3s. The first-class ore is being bagged, and will be sampled towards the end of the month. We hope to get from 15 to 20 tons. The concentrating ore is being stacked, and will be treated as soon as we can get the use of the Argent mill, at present undergoing repairs.

MICA AND ITS USES.—The commercial micas are:—Muscovite (white mica), phlogopite (amber mica), biotite (black mica). Muscovite occurs in greatest quantities in granites and gneiss. Phlogopite is generally associated with magnesian limestone and pyroxenic rocks. Muscovite is used for stove panels. For this purpose it must be clear and free from spots. The best Muscovite is of a ruby wine colour when in blocks. The white colour comes next in value. The sizes of the sheets most desired for commercial purposes are 1½ inch by 2 inches up to 8 inches by 10 inches. Phlogopite is used for electrical purposes, and must be smooth, free from wrinkles and crevices. It must split easily, and it must be very flexible and able to stand a very high temperature without disintegrating; dark spots lessen its value. Waste mica is ground and used as a lubricant for heavy bearings, in certain insulating compounds, for decorating wall-papers, and as a fertiliser. Scrap mica is made up into large sheets by a patent process. The principal sources of mica are India, Canada, and the United States of America. Mica is best mined by hand, as machinery is more liable to injure the sheets. The mineral is blasted, sorted, split to the correct thickness, and then trimmed and packed for the market in paper packages weighing 1lb. As a rule, only 4 per cent. is brought into a marketable form, so that the waste is enormous.—*Industries and Iron.*

The JUBILEE GOLD COMPANY (LIMITED) have declared a dividend of 30 per cent. payable to all shareholders registered on July 6.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (June 27) as follows:—The mining market continues quiet, being almost devoid of business, and without some permanent improvement in tin and a reduction of stocks, prices will not show any material advance:—Blue Hills, 11s. to 12s. 6d.; Carn Brea, 1¾ to 2; Cook's Kitchen, ⅝ to ¾; Devon Consols, 30s. to 31s. 6d.; Dolcoath, 45 to 45½; Drakewalls, 2s. 6d. to 3s.; East Pool, 5¼ to 5⅜; Killifreth, 11s. to 12s. 6d.; Levant, 4⅝ to 5; Polberro, 18s. 6d. to 20s.; South Crofty, 11s. to 12s. 6d.; South Frances, 8s. 6d. to 10s.; Tincroft, 6½ to 6¾; West Frances, c.p., 12s. 6d. to 14s.; West Kitty, 5⅛ to 5⅜; Wheal Basset, 1⅜ to 2; Wheal Friendly, 1s. 9d. to 2s. 3d.; Wheal Grenville, 11¾ to 12; Wheal Kitty, 1s. 6d. to 2s.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of Thursday, June 27:—The market has been rather better this week, and prices generally slightly higher. Dolcoath advanced to £47, and it is expected that the new £1 shares will be dealt in in a few days. West Kitty are lower at 5⅜. Quotations herewith:—Blue Hills, ⅛ to ¼; Carn Brea, 1¾ to 2; Cook's Kitchen, ½ to ⅝; Dolcoath, 46 to 48; East Pool, 5 to 5¼; Killifreth, ¼ to ⅜; Polberro, ½ to 1⅛; South Crofty, ½ to ⅝; South Frances, ¼ to ½; Tincroft, 6¾ to 7⅛; West Frances, ¾ to 1; West Kitty, 5⅛ to 5⅜; Wheal Basset, 1⅛ to 1⅜; Wheal Grenville, 12 to 12½; Wheal Kitty, ⅛ to ¼. Tin, 62½.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write June 27 (noon):—The past week has shown a fair number of alterations in prices, and these—though figures hung fire till the arrangement of the fortnightly account—are mostly in an upward direction, the tone of the markets having mended, and better prices been registered in the past two or three days. In home rails the Scotch division have furnished the instances of most advance, but better prices more or less are fairly numerous, and all but uncontradicted. Americans have oscillated, and, except in one or two cases, changes on balance are few and fractional, remarks which will mainly apply to Canadians; also Consols have established another record price, the advance on the week amounting to ⅜ per cent. Colonial bonds, &c., show Cape of Good Hope 1, and New South Wales Inscribed ¼ up, and no declines to set against them. There is a long list of advances in home corporation stocks, &c., and no changes of an adverse character.—Higher: Manchester Four per Cent. ⅛, ditto Three per Cent. 1¼, Blackburn Four per Cent. 1, Bolton Three and a-Half per Cent. 1 to 2, Bradford Four per Cent. ¼ to ⅜; Birmingham Three per Cent. ⅛, and Wigan Three per Cent. ⅛. In foreigners, Italian Rentes are ⅛, and Egyptian Unified ⅛ down, but the rest of the changes are upward—viz.: Argentine Six per Cent. 2, ditto Five per Cent. 1⅜, Uruguay Three and a-Half per Cent. 1, Mexican Six per Cent. 1, Brazilian 1⅛ to 2⅛, Spanish Four per Cent. ⅜ to ⅝, Portuguese Three per Cent. ⅜, and Turks "D" ⅜. Business in the miscellaneous markets has not been brisk, save for a few specialities, of which British South Africa (Chartered) is the chief. The transactions in these and one or two banking concerns comprise the bulk of the business of the week. As regards quotations changes are mostly small in amount, and there is no great balance on the side of either higher or lower, speaking generally. The following is the record of daily details:—On Friday last home rails did not move much, the changes therein were not more than ⅛ in amount, except for decline of ⅜ on Great Northern deferred. Lower prices were the rule in Canadians and Americans, but amongst the latter Readings showed as an exception, gaining 3⅛ on some enquiry for the shares. Mexican Rails a flat market, the first preference suffering most, the fall therein being nearly 2. Saturday was the mines' carrying-over day, and this brought in some little activity on this class. General business slow in view of the settlement to commence on Monday. Americans showed somewhat lower prices, otherwise but little changes were recorded. Monday was quiet, with no changes in prices worth especially mentioning. On Tuesday a change came over the markets generally, the tone improving all round, and this notwithstanding the fact that no great amount of new business was reported. All classes of rails show some improvements in prices, and there are few or no declines to contradict them. Yesterday the improvement of the day before was continued in most departments. Home rails were again better, with Scotch stocks to the fore. Canadians also hardened again a bit. Americans, however, showed some little falling-off, finishing rather under the best points of the previous day. Mexicans rather lower again. Home rail traffics were not very brilliant, but apparently they did not give a lower cue to this market. This morning the opening figures show little or no change from last night's close, but something may develop as the day wears on.

BANKS.—Change is nearly all on the side favourable to holders, but none more than ⅛.

INSURANCE.—Very little doing, and changes in small fractions, but all lower.

COAL, IRON, &C.—But little altered, but that little to lower prices.

MINES.—Tone better in many (or most) cases, but Rio Tintos are exceptions, with fall of 11-16.

COTTON SPINNING, &c.—Market dull, but prices undergoing no alterations to speak of.

BREWERIES.—All better where altered, Allsopps having the lead with rise of 2.

MISCELLANEOUS.—Liverpool United Gas A is 3, Gas Light and Coke A 1 to 2, and Brunner Monds ⅛ up. Palace of Varieties 7-16 down. Canals are ⅛ down on both issues.

LATER (4 P.M.).—Home rails good again, especially Scotch stocks and Berwicks. Canadians and Americans mark some declines from yesterday, but on latter Readings are an exception, being ⅜ up. Mexicans have hardened a little.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of June 27:—The market has remained quiet during the greater part of the past week, but towards the end a demand has arisen for Caledonian Deferred and North British Railway stocks. A large business has also been done in British South Africa (Chartered) shares. Oil shares have also been enquired for at enhanced prices. In railways, Caledonian Deferred has advanced from 45⅞ to 47, North British from 40⅜ to 41¼, Glasgow and South-Western from 109 to 109¾, Great North of Scotland has declined from 99 to 98¾. Debenture and other secured investment stocks continue in demand at enhanced prices. Bank stocks wanted at higher prices. Bank of Scotland has risen from 332 to 337, National from 341 cum to 335 ex dividend and bonus, Royal from 226½ to 227, Clydesdale from 19⅜ to 20, Commercial from 69 cum to 68 ex dividend of 30s., Union from 20⅜ to 20½. Insurance shares quiet. Liverpool, London, and Globe have improved from 47⅛ to 47⅜, North British and Mercantile from 37 7-16 to 38, Northern from 69⅛ cum to 69 ex dividend and bonus of 30s. Scottish Life have declined from 37s. to 36s. In oils, Broxburn have advanced from 12 7-16 to 13, Dalmeny from 17 to 17½, Linlithgow from 35s. to 41s., Pumpherston from 9-16 to 9⅝. Young's from 44s. to 48s. Distillers 1s. 3d. higher at 18 1-16.

The extraordinary general meeting of the NEW HERIOT GOLD MINING COMPANY (LIMITED), which was held on June 20 to consider a scheme involving the increase of the capital of the company and the purchase of the claims and all other assets of the Ruby Gold Mining Company (Limited), has been adjourned until August 20.

WANTED.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

ASSOCIATE ROYAL SCHOOL OF MINES desires APPOINTMENT as MANAGER or ASSISTANT MANAGER. Ten years' practical experience at Gold and Silver Mines abroad. Thorough knowledge of Assaying, Surveying, Accounts, and Spanish.
Address, "S. E. M.," MINING JOURNAL Office, 18, Finch Lane, London, E.C.

AN EXPERIENCED PRACTICAL ENGINEER and COMMERCIAL MAN, thoroughly conversant with Indian, Colonial, South American, and Home Contracts for Railways; Plant Engines, Rolling-Stock, Pumping Plant, and specially-designed Workshop and Electrical Machinery, DISENGAGED. Open to a good Working Partnership.
Address, "AUSTIN," Willing's, 125, Strand, W.C.

SOUTH AFRICA.

AGENCY or PARTNERSHIP.—An active PRACTICAL ENGINEER, experienced commercial man, is prepared to represent good Iron, Steel, Tool, and Machinery Houses in South Africa. Will undertake (by contract) Personal Charge, Erection, Repair, and Sale of Machinery, Pumps, Miners' and Builders' Tools, Stores, Builders' Specialties, Electrical Plant, &c.
Address, "RHODESIAN," Willing's, 125, Strand, W.C.

AGENCY OR PARTNERSHIP.

MANUFACTURERS can be represented by an EXPERIENCED ENGINEER in London. Good Colonial experience and connection among Railways, Contractors, and Marine Engineers. Good specialities can be influentially worked.
Address, "SPECIAL," BOX 729, Willing's, 125, Strand, W.C.

MINING ENGINEER, Assoc.R.S.M., F.G.S., is OPEN to ENGAGEMENT. Experience in South Africa and South America.
Address, "MINES," at Shelley's, 38, Gracechurch Street, London, E.

SCHEELITE and WOLFRAM; high class qualities wanted. Address, with samples, analyses, and prices, "G. B.," MINING JOURNAL Office, 18, Finch Lane, London, E.C.

FOR SALE.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

BRAZIL.

IMPORTANT GOLD MINING ESTATES FOR SALE. Apply, to
R. NORTON-DAWSON, Secretary,
Gongo Soco and Rossa Grande Land and Gold Company (Limited),
24 and 25, Devonshire Chambers,
Bishopsgate Street Without, London.

WINDING ENGINES.

SPLENDID PAIR, practically new; 24-inch CYLINDERS. Drum any size to suit purchaser. A bargain for quick sale.
RATCLIFFE and SONS, Hawarden Iron Works, Chester.

FOR SALE, OR TO LET.

By Order of the Executrix and Devisee of the late William Thomas, Esquire, J.P.

The Old-Established Engineering and Iron and Brass Founding Works, known as the
RAILWAY WORKS, LLANIDLOES, NORTH WALES.

THE works comprise Iron and Brass Foundry, Pattern Shop, Fitting and Machine Shop, Smithy, Carpenter, and Wheelwright Shop, &c. All of which are fitted with modern machinery and facilities for executing the most varied description of Engineering Works, and would also suit a firm having a speciality for manufacture.
The Buildings are extensive and in excellent condition, and the Cambrian Railway runs right into the works.
Full particulars and terms may be obtained upon application to Messrs. JENKINS and DAVIES, Solicitors, Llanidloes, Montgomeryshire.

NANTLE SLATE QUARRIES.

FOR SALE, in the Nantle Vale, Carnarvonshire, the fee simple of TYNLLWYN, a farm of over 50 acres, through which pass the veins, &c., the slates from which have acquired the highest commendation. Also Machinery, Plant, &c.
Apply, PUGHE-JONES, Ynysgain, Criccieth, North Wales.

COPPER IN BLOCKS
(94 Per Cent.)
IN DELIVERIES OF 10 TONS, EVERY 4—6 WEEKS.
BUYERS AND AGENTS WANTED.
Address, "L. W. 146," care of Rudolf Mosse, Berlin, S.

TO LET.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

COLLIERY TO LET, IN MONMOUTHSHIRE, GAS AND STEAM COALS, 12 MILES FROM NEWPORT.
TOTAL MINERAL AREA of principal seams unworked 1100 acres. PRESENT CAPACITY 500 tons per day, could be increased LEASE FOR 17½ YEARS with probability of extension. ROYALTIES 7½d. per ton. Large and small coal. RAILWAY COMMUNICATIONS in every direction.
For further particulars apply to Messrs. COLBORNE, WARD, AND COLBORNE, Solicitors, Victoria Chambers, Newport, Mon.

J. A. JONES, Mining Engineer,
(M.Inst.M.M., M.N.Eng.Inst.M.M.E.)
GIJON (ASTURIAS), SPAIN.

THE ENGINEERING AND MINING JOURNAL: Every Miner, Metallurgist, Investor in Mining Property, and every Dealer in Minerals and Metals should subscribe for it.
Contains everything of interest and value in mining and metallurgy. The fullest mining news. The best coal, metal, and mining stock market report. It is the BEST ADVERTISING MEDIUM for all kinds of Machinery, Tools, Hardware, and Supplies used in the mining regions; for Electrical Appliances and Machinery; for Metals of all kinds; for Mining Property for Sale, &c.
Subscription Price $5.00 a Year for the United States, Canada and Mexico $7.00 a year for other Countries in the Postal Union. Published Weekly.
THE SCIENTIFIC PUBLISHING COMPANY
Booksellers and Publishers of Technical and Scientific Books.
253, BROADWAY, NEW YORK.
LONDON OFFICE: 20, BUCKLERSBURY, E.C.

BRITISH GUIANA'S GOLD INDUSTRY.

THE gold entered at the Custom House, Georgetown, on the 29th ult. for shipment per the R.M.S. *Solent*, which sailed the following morning, amounted to 5377 ounces 9 dwt. 22 grains to the value of $95,688·28 as compared with 6414 ounces 2 dwts. 1 grain to the value of $113,375·36. With this addition the total output for the year amounts to 46,708 ounces 1 dwt. 11 grains to the value of $827,131·56. The following are the returns for weeks ending respectively:—

	May 25. Ozs.	dwts.	grs.	June 1. Ozs.	dwts.	grs.	June 8. Ozs.	dwts.	grs.
Barama ...	75	1	2	86	15	13	36	3	23
Barima ...	603	13	4	704	6	17	130	10	13
Cuyuni ...	607	3	9	504	17	11	492	3	0
Demerara ...	—			—			6	16	9
Essequebo ...	869	2	10	577	14	17	964	11	7
Groete Creek ...	—			12	4	9	2	17	6
Mazaruni ...	—			—			292	17	15
Potaro ...	327	19	18	224	8	1	513	13	22
Puruni ...	208	19	8	6	10	5	137	11	7
Total ...	2691	19	3	2116	17	1	2577	5	16

There is a slight increase in the export of gold from 1st January to 10th June, the figures for this and last year being respectively 46,708 ounces 1 dwt. 11 grains, value $827,131 56, and 46,702 ounces 19 dwts. 10 grains, value $833,665·88.

WE are notified that the New Era Company (Limited) has opened a transfer-office at Winchester House, E.C., the London committee being Messrs. T. S. Marshall, F. A. Gillam, and F. W. Green; the London secretary, Mr. George Thomson.

GOLD IN BRITISH GUIANA.

THE UNDERSIGNED are prepared to act as AGENTS for parties wishing to PROSPECT for GOLD in BRITISH GUIANA, or who have bought and intend working properties in that Colony.

They have had EXPERIENCE with the GOLD INDUSTRY of the COLONY extending over TEN YEARS, and the PLACERS now under their control, and principally owned by them, have produced over

60,000 OUNCES OF GOLD

in the last five years.

GARNETT and CO., Georgetown, Demerara.

For reference, apply to

SECRETARY, Royal Mail Steam Packet Co., 18, Moorgate Street, London, E.C.

W. GOSSAGE and SONS (LIMITED), Widnes, Lanc.

A. GARNETT and Co., 30, North John Street, Liverpool; or

BRITISH GUIANA BANK (see advertisement, first page this paper), Georgetown, Demerara.

MACARTHUR-FORREST PROCESS.

TO MINE OWNERS AND OTHERS

Having REFRACTORY GOLD ORES hitherto untreatable at a profit, the MACARTHUR-FORREST (PATENT) PROCESS OF GOLD EXTRACTION offers a solution of the difficulty.

The chief features of this Process are:—

SIMPLICITY, ECONOMY IN WORKING, and SMALL COST of PLANT.

PROPRIETORS:—

The Cassel Gold Extracting Co. (Ltd.)

Head Office—108a, Hope Street, Glasgow.
London Office—23, College Hill, Cannon Street, E.C.
Africa—The African Gold Recovery Co. (Ltd.), Johannesburg.
Australia—The Australian Gold Recovery Co. (Ltd.), 8, Post Office Chambers, Sydney, N.S.W., Charters Towers, Queensland, and Mr. Geo. S. Fowler, J.P., Adelaide.
United States—The Gold and Silver Extraction Co. of America (Ltd.), Denver, Colo.
Mexico—The Mexican Gold and Silver Recovery Co. (Ltd.), 2a, Calle de Providencia, No. 7, Mexico City, Mexico.
Chili—Mr. Wm. Jones, Calle Almendro, Valparaiso.
New Zealand—The Cassel Gold Extracting Co. (Ltd.), 6, Herald Buildings, Queen Street, Auckland.
Canada—Mr. W. Pellew Harvey, F.C.S., 717 and 719, Pender Street, Vancouver City, British Columbia.

The CASSEL GOLD EXTRACTING Co. (Ltd.) are manufacturers of CYANIDE, suitable for the MacArthur-Forrest Process.

For terms, apply at Head Office of the Company,
108a, Hope Street, GLASGOW.

ONLY GOLD MEDAL FOR ALLOYS, INVENTIONS EXHIBITION.

"PHOSPHOR-BRONZE." (Cog Wheel Brand.)

The Best Alloys for all Wearing parts of Machinery, Bearings, &c.

BEWARE OF ALL IMITATIONS, & SPECIFY THE COMPANY'S MAKE.

BULL'S METAL, Ingots, Forgings, Castings, Stampings, Rods and Sheet. } Specially adapt for Mining Work.

The Phosphor Bronze Company

(LIMITED AND REDUCED).
87, SUMNER STREET, SOUTHWARK, LONDON, S.E.

SHIPPING.

UNION LINE.

FOR SOUTH AFRICAN GOLD FIELDS.—WEEKLY SERVICE.—CAPE OF GOOD HOPE, NATAL, and EAST AFRICAN ROYAL MAIL STEAMERS.—The UNION STEAMSHIP COMPANY'S ROYAL MAIL and INTERMEDIATE STEAMERS will Sail as follows for SOUTH and EAST AFRICA, calling at MADEIRA, and TENERIFE.

Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
†Moor	—	—	—	July 6
*Athenian	—	July 2	July 6	July 13
†Mexican	—	—	—	July 20
*Greek (twin screw)	July 16	—	July 20	July 27

† Calling at Madeira. * Via Tenerife.

Free railway tickets from London and Plymouth to Southampton.
Cheap Tickets are issued for Passengers' Friends.
The Union Line Express is despatched from Waterloo Station (Main Line Platform) every Saturday.

RETURN TICKETS ISSUED.

Apply to the UNION STEAMSHIP COMPANY (Limited), Canute Road, Southampton; 14, Cockspur Street, London, S.W.; and South African House, 94 to 96, Bishopsgate Street Within, London, E.C.

CASTLE LINE.—CAPE & NATAL MAILS.

WEEKLY SERVICE FOR THE GOLD FIELDS OF SOUTH AFRICA.—The CASTLE COMPANY'S STEAMERS leave LONDON (East India Dock Basin, Blackwall) every FRIDAY, and sail from SOUTHAMPTON every SATURDAY.

Steamers.	London.	Southampton.
Harlech Castle (via Canaries)	July 5	July 6
Tantallon Castle (via Madeira)	July 12	July 13
*Lismore Castle (via Canaries and St. Helena)	July 19	July 20
Roslin Castle (via Madeira)	July 26	July 27

* Also for Madagascar and Mauritius.

Return tickets to all Ports.

Free Tickets by Castle Express from Waterloo to Southampton.

Apply to DONALD CURRIE and Co., 3, Fenchurch Street, London, E.C.

West End Agency, THOS. COOK AND SON, 13, Cockspur Street.

AUSTRALIAN MINERALS.

COLLECTIONS of AUSTRALIAN MINERALS for Show Cases or for technical purposes supplied to order. Price from £2 2s. upwards On receipt of order with remittance a collection will be made up and dispatched without delay.

MINES REPORTED ON.

J. B. AUSTIN, Mineralogist, Adelaide, S.A.

THE DUNDEE ADVERTISER,

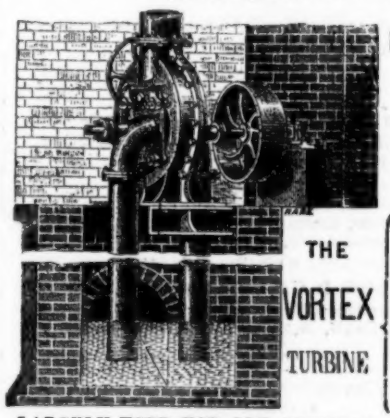
The LEADING DAILY PAPER in SCOTLAND, North of the FORTH.

FIRST in CIRCULATION. FIRST in INFLUENCE.
FIRST in ADVERTISEMENTS.
FIRST in PARLIAMENTARY NEWS.
FIRST in GENERAL INTELLIGENCE.
FIRST in COMMERCIAL INFORMATION.

The Recognised Advertising Medium for Dundee, Forfarshire, Fifeshire, Perthshire, and North of Scotland.

JOHN LENG and Co.,
7 to 25, Bank St., Dundee and 186, Fleet St., London.

PRIZE MEDALS { London, 1862. Paris, 1867. Calcutta, 1884. } **G. GILKES & Co.,** LIMITED, **KENDAL**



Illustrated Descriptive Pamphlets, with numerous Testimonials supplied on application.

THE VORTEX TURBINE

- Self Contained.
- Easily Fixed.
- Economical.
- Efficiency Guaranteed.
- Regular in Speed

LARGELY USED FOR ORE CRUSHING AND ELECTRIC LIGHTING, AND MILLS OF ALL DESCRIPTIONS.

TURBINES.

Little Giant Turbine.

The well-known "LITTLE GIANT" for developing Water Power with any fall from 3 feet and upwards.

CATALOGUES FREE.

S. HOWES,
64, MARK LANE, LONDON.

Telegrams: BARBEAU, LONDON.

BUSINESS CARDS.

AERIAL ROPEWAYS.

"OTTO" SYSTEM.

R. E. COMMANS (late Commans and Co.), 6, Queen Street Place, London, E.C.

ASBESTOS.

THE UNITED ASBESTOS COMPANY (Limited), Dock House, Billiter Street, London, E.C. Asbestos Goods of the highest quality.

COAL WASHING MACHINERY.

TELEGRAMS: "SHEPPARD, BRIDGEND."

COAL WASHING MACHINERY

Specially adapted for Exportation Conveyors, Picking Bands, Screens, Dead-Weight Crushers, and Rolls.

SHEPPARD & SONS (Limited), Engineers, Coity Road, Bridgend, South Wales.

CONCENTRATORS.

THE CLARKSON-STANFIELD CONCENTRATOR (Limited). New system for the treatment of gold, silver, copper, lead, and other ores. Address, 6, Colonial Avenue Minories, London, E.

EXPLOSIVES FOR MINING.

NOBEL'S EXPLOSIVES COMPANY (Limited), Glasgow. Manufacturers of Gelignite, Gelatine-Dynamite, Dynamite, Detonators, Electric Detonator Fuses, &c., &c.

FUSE MANUFACTURERS.

WILLIAM BENNETT, SONS, & CO., Roskear Fuse Works Camborne, Cornwall. Manufacturers of the celebrated "Crown Brand" Blasting Fuse for Mining Purposes.

IRON BUILDINGS.

ISAAC DIXON & CO., Liverpool, Iron roofs, Houses, and mining machinery buildings of every description.

WOOD PRESERVATIVE.

Reg. **"JODELITE."** Reg.

Not applied under pressure. The Best and Cheapest Preventive of Decay, Dry Rot, and the attack of White Ants in Timber Manufactured by JOSEPH DEE, 5, Cross Street, Manchester.

METAL PERFORATORS, &c.

J. & F. POOL,
METAL PERFORATORS & WIRE WEAVERS,
COPPERHOUSE, HAYLE, CORNWALL.

SPECIALITIES:—All descriptions of Perforated Metal Plates, Stamps' Battery-Screens, Wire Gauze and Sieves for Foreign and Home Mining, and other Purposes. Export orders carefully and promptly executed.

MINING INSTRUMENTS.

JOHN DAVIS & SON, All Saint's Works, Derby; and 118, Newgate Street, London, Mathematical instruments and miner's safety lamps.

MINING MACHINERY.

FRASER & CHALMERS (Limited), 43, Threadneedle Street, London, E.C. Mining machinery of the most approved design.

THOMAS LARMUTH and CO., Salford, Manchester Manufacturers of Patent "Hirnant" Plant, Rock Drills, Air Compressors, Sinking Carriages, &c.
Agents for South Africa—Messrs. REUNERT and LENZ, Johannesburg

ROBEY & CO. (LIMITED), Manufacturers of Steam Engines Mining Machinery, &c. Makers of the Robey Patent Automatic Expansion Gear.—Globe Works, Lincoln.

ORE DRESSING MACHINERY.

THE LÜHRIG COAL AND ORE DRESSING APPLIANCES (LIMITED),
32, VICTORIA STREET, LONDON, S.W.

COMPLETE DRESSING PLANTS for Gold, Silver, Lead, and Copper Ores, &c., designed and erected.
LÜHRIG SINGLE AND COMPOUND VANNERS for Low Grade Ores and Tailings.
IMPROVED BREAKERS, ROLLS, JIGS, AND SEPARATING DRUMS.

Tests made with Samples at London Works Free of Charge.

ROCK DRILLS.

RICHARD SCHRAM & CO, 17a, Great George Street, Westminster, S.W.

STONEBREAKING MACHINERY.

W. H. BAXTER, Engineer, Leeds. Stone breaking and ore crushing machinery. All highest awards received for 12 years' Guaranteed for economy in power, efficiency and durability over all others. Catalogues free.

GATES IRON WORKS, 73A, Queen Victoria Street, E.C. The Gates Rock and Ore Breaker effects a great saving in power.

TUBE MAKER.

GEO. J. CHATTERTON, manufacturer of lead pipe, block tin pipe, and tinned composition gas tube, Caledonian Road, London, N

TURBINES.

G. GILKES and CO., Kendal Makers of The Vortex Turbine.

THE WEST BRITON AND CORNWALL ADVERTISER.

The best Family Newspaper for Cornwall and the West of England generally.

MONDAY AFTERNOON, 4 Pages, One Halfpenny.
THURSDAY AFTERNOON, Pages, 56 Columns, One Penny.

The Largest and Most Influential Journal of Cornwall.
The Best Advertising Medium in the West of England.
The Largest Circulation of any Cornish Newspaper.

The "WEST BRITON" contains more reliable information respecting Cornish Mines than any other Newspaper
HEARD and SONS, Publishers, Truro.

ASHBURTON DISTRICT, W.A.

By BRENTON SYMONS, M.I.C.E.

THE Ashburton gold field is a considerable distance inland, and lies between the northern watershed of the Gascoyne river and the North-West gold fields. It is situated on the Ashburton river 200 miles up from Onslow, the port whence supplies are obtained. The district is small, comprising an area of only 8000 square miles. The first discovery was made in 1890 about 150 miles up the river, where alluvial gold was found in such rich gravels that 15,000 ounces of gold were washed out in six months. Such patches of stream gold have been found for a long distance in the bends of the river. At Top Camp highly water-worn gold was found on the ledges of the clay-slate riverbed; the largest nugget found was 6 lbs. in weight. It is said 10,000 ounces were taken out, though no reefs were remarked. Fifteen miles down the river, in Mount Blair creek the pieces of gold were of a much smaller size. The creeks run through clayslate. On the other side of the river, 20 miles further down, are the Dead Finish diggings, from which about 1050 ounces only of gold were obtained, although quartz reefs abound. At Mount Dawson, much further down, are the Mortimer diggings, where shallow gravels have been worked with more or less success. The "slugs" of gold are much smaller than on the upper river, the largest nugget found weighing but 4½ lbs.; the aspect of the country is also different, being more sandy and flaggy. The rocks prevailing are clay-slates, somewhat cleaveable quartzites and sandstones traversed by numerous quartz veins, many of which have gossany backs owing to the weathering of the mundic. The field is just now deserted for more prosperous mining camps, though little prospecting for reefs was ever done. It is probable that in the slates and quartzites east of Top Camp good reefs may be found in the future. It is generally admitted that this district may yet prove to have deeper diggings, and be the centre of alluvial mining in the future.

In the Gascoyne basin south of the Ashburton, some auriferous country exists about its head waters, but no prospecting of any importance has been done, and the country is mostly pastoral. Carnarvon, at the mouth of the Gascoyne, is the port, but the gold field is about 400 miles from the coast over a very difficult country.

YIELD OF GOLD IN THE ASHBURTON DISTRICT.

	Ounces.	Dwts.	Grs.		£	s.	d.
1891	838	14	10	.....	3187	2	9
1892	—	14	0	.....	2	13	2
1893	467	14	22	.....	1777	8	8
1894	285	5	10	.....	1084	0	8
Total	1592	8	18		6051	5	3

The returns during the first three months of 1895 were as follows:—

	Ounces.	Dwts.	Grs.		£	s.	d.
January.....	—	—	—	.....		—	
February	—	—	—	.....		—	
March	29	12	1	.....	112	9	10

It should be remembered that the only figures attainable are official, and that a very large percentage of gold raised is unreported, and this is most especially the case with regard to alluvial diggings. As will be gathered from the 1895 returns, the Ashburton field is almost deserted, but there is no doubt that if thoroughly prospected good reefs would reward the searchers.

THE DEPTHS OF COAL MINES.—M. Grousset's proposal to sink a shaft 1500 metres in depth has attracted general attention to the depths of existing mines. Some American technical journals claim that there is a copper mine in Michigan with a shaft 1972 metres in depth. M. Haton de la Goupillière, director of the Paris School of Mines, has been interviewed on the subject by a correspondent of *La Nature*, to whom he gave some interesting details. From the data in his possession he found the greatest depth of mine shafts did not exceed 1200 metres. Beyond that it was only a question of boreholes. M. L. Pouissigue, director of the Ronchamp Mines, in the Haute Saone, has made enquiries as to what were the greatest depths attained in Europe. In Bohemia, at Pzbram, he found the Marie shaft with a depth of 1130 metres, the Adalbert shaft with the same depth, and the Franz Joseph with exactly 1000 metres. The Sainte-Henriette shafts at Flenu, near Mons, Belgium, is said to hold the record, with a depth of 1200 metres. Between 1000 metres and 1200 metres the temperature of the rock was 45°; thanks to good ventilation, the atmosphere of the pit at that depth was successfully lowered to 20°, although even at that temperature continuous work was trying.—*Canadian Colliery Guardian and Critic.*

CITY AND GUILDS OF LONDON INSTITUTE EXAMINATION PASS LISTS.—The following candidates have passed the technological examinations recently held by the City and Guilds of London Institute in the subjects indicated:—*Mine Surveying*: Archbold, Ralph Augustus; Payne, Herbert Gerald; Jenkin, Walwin Ninnis; Judge, Arthur Theophilus; Whittall, Hugh Elliot Charles; Tucker, Edmund Snell; Semmens, Henry G; Cann, Alfred Wilmot; Trythall, Frank; Brownlie, L. K.; Mirrielees, Herbert Lionel; Hepburn, William Clay; Richards, Charles Henry; Simmons, Alexander; Leitch, Archibald; Edmiston, Ronald L.; Orr, George; Cockburn, Evan; Oke, Alfred Livingstone; Thomas, Jas. Frederic; Wickett, Frederick; Curtis, John; Skinner, Frank Tremayne; Rich, Frederick John; Smith, Hugh; Clarkson, Henry; Wardell, John Nichol; Young, Donald; Bowie, William; Grenfell, Henry; Stephens, William James; Webb, Alfred Henry; Crown, William; Booth, Frederic Lancelot; Ware, Stanley Dawson; Jackson, Herbert Edward; Rosewarne, Richard; Webb, Roland Cecil; Carne, Alfred Wilmot; Bryant, Thomas Andrew; Richards, Norman Frederick Kynaston; Richards, Charles Henry; Stephens, Hugh Edgar George; Campbell, Douglas; Marshall, Charles Cuthbert; Prout, William M.; Lewis, Francis Blount; Garnett, Frederic; Archbold, Aubone Mackinlay; Leitch, Archibald; Thomson, John B.; Shaw, Ralph; Spry, John; Southern, Stephen; Bray, Richard Henry; Doidge, Alfred Ernest; Hawley, Matthew Henry; Leach, George Catterall; Hutchinson, Charles Moses; Wroe, Henry James; Chambers, Horace James; Horrox, Reginald Edward; Walls, William; Arundel, Joseph; Robertshaw, Herbert; Sampson, John Richard; Davies, Hugh; Davies, David F.; Nicholas, Benjamin; Bell, John Frederick.—*Raising and Preparation of Ores*: Nicholas, William Bolitho; Crothers, George; Campbell, Douglas; Norbury, Willoughby Fitzgerald; Jackson, Herbert Edward; Kewley, Robert Rigby; Rosewarne, Richard; Deverell, Louis Charles; Teale, Joseph William; Willis, Alfred Burt; Bedingfeld, Francis; Marshall, Charles Cuthbert; Webb, Roland Cecil; Ware, Stanley Dawson; Perkins, Cyril Warton; David, Cyril Stanhope; Tarbutt, Percy Coventry; Robson, Henry Duncan; Lewis, Francis Blount; Bannatyne, Claud; Blest, Tom; Gray, James Wensley; Rowe, Leonard.

WE have much satisfaction in announcing that Mr. Jos. D. Weeks, of Pittsburg, the new President of the American Institute of Mining Engineers, will probably pay a visit to this country next month,

THE UNITED ASBESTOS CO. (Limited),

DOCK HOUSE, BILLITER STREET, LONDON, E.C.

PIONEERS of the ASBESTOS Trade. The ONLY COMPANY in the WORLD owning and working Asbestos Mines both in ITALY and CANADA. All goods are made at our Works, near London, and are of the best possible description.

SPECIFY "SALAMANDER" BRAND.

Depots: NEWCASTLE-ON-TYNE, Quay Side; MANCHESTER, 34, Deansgate LIVERPOOL, 33, James Street; GLASGOW, 93, Bothwell Street; CARDIFF, 135, Bute Street; BRISTOL Provident Buildings, Clare Street ST. PETERSBURG, Gostinoe Dvor, (interior) No. 51.

PUBLICATIONS.

.* Prepaid Advertisements are inserted in this column at the rate of 8d. per line, with a minimum charge of 4s.

WORKS on MINING, METALLURGY, and ALLIED SUBJECTS.

A Hand-Book of Gold Milling. By HENRY LOUIS, A.R.S.M., F.G.S., &c. Crown 8vo., 10s. net.

The Golden Quartz Reefs of Australia. By WILLIAM NICHOLAS, F.G.S., with Illustrations. A series of Articles especially relating to the Sandhigo Gold Field, Victoria. 2s., Post Free.

A New Guide to the Iron Trade, or Mill Managers' and Stock Takers' Assistant. By JAMES ROSE, of Batman's Hill Iron-Works. Second Edition. Comprising a Series of New and Comprehensive Tables, practically arranged to show at one view the Weight of Iron required to produce Boiler Plates, Sheet Iron, and Flat, Square, and Round Bars, as well as Hoop or Strip Iron of any dimensions, to which is added a variety of Tables for the convenience of Merchants, including a Russian Table. 8s. 6d.

The Colliery Ready-Reckoner and Wages Calculator. By JAMES IRELAND. 1s. 6d., Post Free.

Tacknote: a Form of Licence to Explore and Search for Mines, Minerals, &c. 1s, Post Free.

Notes on the Philippine Islands: A Pamphlet Reprint. By FRANK KARUTH, F.R.G.S. 6d.

History of the Holmbush, Redmoor, and Kelly Bray Mines; with Several Sections of the Workings. By W. F. WILKINSON. 1s.

The Law of Merchandise Marks. By FRANK SAFFORD. Of the Middle Temple, Barrister-at-Law, and a Member of the London Chamber of Commerce. 7s. 6d.

LONDON:

THE MINING JOURNAL,

18, FINCH LANE, E.C., and

3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

SOUTH AFRICAN MONTHLY DIARY.

A NEW MONTHLY PUBLICATION, containing useful information concerning the various Rand-Mashonaland Mining, Land, and Miscellaneous Companies. (Fourth number, July 1st, with Plan.

WHITEHEAD, MORRIS, AND COMPANY (LIMITED), 9, Fenchurch Street,

Price 6d.

THE MONTAN ZEITUNG

For Austria, Hungary, and the Balkan States, Graz (Austria), has the largest circulation of any technical paper on the Continent, and

IS THE BEST MEDIUM

to advertise English Machinery and Appliances for

MINING, MANUFACTURING, AND ALL INDUSTRIAL PURPOSES

throughout Austria, Hungary, Servia, Bulgaria, Roumania, Montenegro, &c.

For general information and scale of Advertisements, apply to

F. MANSFIELD and CO.,

2, Lion Chambers, BRISTOL.

EL MINERO MEXICANO.

The Mining and Industrial Journal of Mexico,

ESTABLISHED 1873.

Published in the City of Mexico every THURSDAY in the Spanish Language.

Taken by Mine Owners, Capitalists, Manufacturers, Merchants, the richest and most liberal people, all over Mexico.

THE BEST ADVERTISING MEDIUM.

MEXICAN PATENT & TRADE MARK AGENCY,

4, Independencia No. 1, City of Mexico.

RICHARD E. CHISM, M.E., Editor and Proprietor.

THE GLASGOW HERALD

(ESTABLISHED 1782)

IS THE

LARGEST & LEADING ADVERTISING MEDIUM

OUT OF LONDON.

It is next to *The Times* and *The Daily Telegraph*, each of which it exceeds in extent of Advertising during several months of the year. It is unrivalled among Daily Papers for the completeness of its Reports of the Mining and Metal Markets, besides Commercial and General News for all classes of the community.

HEAD OFFICES: 65-69, BUCHANAN STREET, GLASGOW

LONDON OFFICES: 65 FLEET STREET.

NORTH QUEENSLAND REGISTER

THE LEADING NORTH QUEENSLAND WEEKLY,

PUBLISHED AT CHARTERS TOWERS, NORTH QUEENSLAND

MINING A SPECIALITY.

Subscription £1 4s. per annum; including postage to Great Britain £1 15s. per annum.

Address communications to—

THE NORTHERN MINER PRINTING AND PUBLISHING COMPANY CHARTERS TOWERS, QUEENSLAND

E. HENRY DAVIES, F.G.S.,

CONSULTING MINING ENGINEER,

6, GREAT WINCHESTER STREET, LONDON, E.C.

Author of "Machinery for Metalliferous Mines."
Joint Author of "Metalliferous Mines and Mining."
"Earthy and other Minerals and Mining."

Undertakes the INSPECTION and MANAGEMENT of MINES at home and abroad, and the introduction of approved Properties to Capitalists. Minerals of all descriptions purchased in large or small quantities.

EFFINGHAM WILSON'S PUBLICATIONS.

Duncan on "Investment and Speculation."

SECOND EDITION.

Price 2s. 6d.

"It explains the principles on which a capitalist can obtain the highest return for his money"—*Daily News.*

EFFINGHAM WILSON, London, Royal Exchange; and of all Booksellers.

NOW READY.

THE MINING MANUAL FOR 1895.

By WALTER R. SKINNER.

The "MINING MANUAL" for 1895 deals with 1486 Companies, of which 459 are South African, and 116 are West Australian.

South Africa, of March 9, says:—"Our old friend the 'Mining Manual' comes before us once more, brighter and bulkier than ever. Everybody dealing in the mining market should have a copy. It will be seen, therefore, that the book should be circulated by hundreds of thousands. For ourselves, we honestly say we find the work indispensable in our reference library. The immense amount of information given has been carefully revised and brought down to date. This involves enormous labour, but it has been well and duly performed. We read in the preface that every statement in the book has been submitted to the notice of the company therein concerned, so that the figures and details for all practical purposes bear an official stamp that guarantees the trustworthy character of the book. We cordially compliment Mr. Walter R. Skinner in getting his big and useful work once more to press. All South African enterprises are treated under a special department, the whole contents of the book being admirably and conveniently arranged and indexed.

SEVENTH YEAR OF PUBLICATION.

800 pages. Price 10s. 6d., post free.

LONDON

26, NICHOLAS LANE, LOMBARD STREET, E.C.

THE AUSTRALIAN MINING STANDARD

IS THE

ONLY RECORD OF MINING, FINANCIAL, and ENGINEERING PROGRESS IN THE SOUTHERN HEMISPHERE.

PUBLISHED WEEKLY. ILLUSTRATED.

Subscription, 30s. per annum (payable in advance).

Dr. E. D. PETERS, Jun. says:—"*The Mining Standard* is the best Mining Journal in the World, save one."

THE AUSTRALIAN MINING STANDARD COMPANY, LIMITED

Printers and Publishers,

SYDNEY AND MELBOURNE.

THE WEST AUSTRALIAN REVIEW.

A WEEKLY JOURNAL

For ALL INTERESTED in WEST AUSTRALIAN AFFAIRS.

EVERY THURSDAY, THREEPENCE.

Edited and owned by **ALBERT F. CALVERT, F.R.G.S.**, &c.

Author of "Discovery of Australia;" "Mineral Resources of Western Australia," &c.

"THE WEST AUSTRALIAN REVIEW" contains Special Articles on the Gold Fields of Western Australia.

OFFICE—47, OLD BROAD STREET, E.C.

THE INDIAN ENGINEER.

AN

ILLUSTRATED WEEKLY JOURNAL

FOR

ENGINEERS IN INDIA AND THE EAST.

The "INDIAN ENGINEER" contains the latest and most authentic information on all subjects connected with Engineering enterprise in India and the East.

Subscribers when in England can make use of our London Office (1-2, Victoria Mansions, Westminster, S.W.), and can have letters addressed there and forwarded when travelling.

Correspondence invited on any subject which may be of interest to the profession.

RATES OF SUBSCRIPTION (payable in advance, including a copy of the INDIAN ENGINEER'S DIARY):—

Thick paper Edition, including postage		Thin paper Edition, including postage	
Yearly	Rs. 20	Yearly	Rs. 15
Half-yearly	Rs. 11	Half yearly	Rs. 8
Quarterly	Rs. 6	Quarterly	Rs. 5

Published at 5-6, Government Place, Calcutta.

THE STAFFORDSHIRE ADVERTISER.

ESTABLISHED 1795.

The Principal County Paper in the Midlands.

Advertisers will find it the BEST MEDIUM for reaching superior class of readers over large area centred by Staffordshire fifth county in population and sixth in wealth.

Published at Stafford every SATURDAY (Price Twopence), and to be obtained at Euston and Principal Bookstalls between London, Liverpool, and Manchester

CORNISH POST AND MINING NEWS

A HIGH-CLASS UNIONIST NEWSPAPER.

Specially devoted to Cornish Mining, upon which it contains the fullest and most reliable information published. It is the only eight-paged newspaper printed in the Mining Division of Cornwall,

ISSUED EVERY FRIDAY MORNING,

PRICE ONE PENNY.

The Cornish Post and Mining News Co. (Limited)

East Charles Street, Camborne, Cornwal

MINING MACHINERY

OF ALL KINDS.

SPECIALITY.

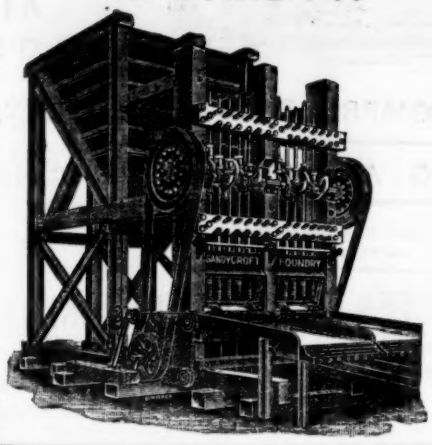
QUARTZ CRUSHING AND

High Pressure and Compound
WINDING, PUMPING & DRIVING ENGINES.

Air Compressors and Rock Drilling Plant.

WATER WHEELS & CORNISH PUMPS.

The SANDYCROFT FOUNDRY & ENGINE



AMALGAMATING MACHINERY.

GOLD

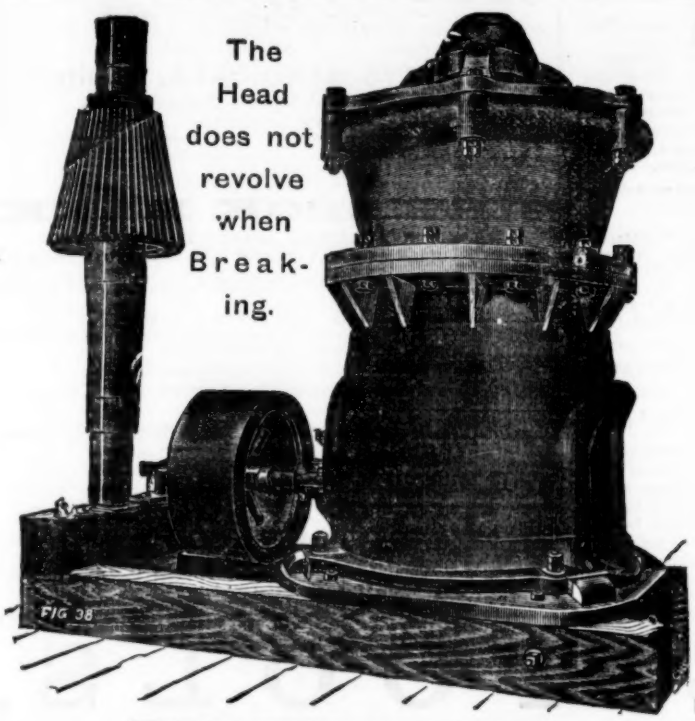
STAMP MILLS

OF THE LATEST and MOST APPROVED DESIGNS.

"SANDYCROFT" SHOES and DIES

Acknowledged to be the best that are made.

WORKS Co. (Limited), near CHESTER.



The Head does not revolve when Breaking.

EXTERIOR VIEW—Showing Crushing Head.

Manufacturers of Mining Machinery and complete Macadam Plants.

GATES ROCK AND ORE BREAKER.

Capacity in Tons of 2000 Pounds.

Size 0—2 to 4 tons per hour.	Size 3—10 to 20 tons per hour.	Size 6— 30 to 60 tons per hour.
„ 1—4 to 8 „ „	„ 4—15 to 30 „ „	„ 7— 40 to 75 „
„ 2—6 to 12 „ „	„ 5—25 to 40 „ „	„ 8—100 to 150 „

Passing 2½ in. ring, according to character and hardness of material.

GREAT SAVING IN POWER. Adjustable to any Degree of Fineness.

The principle involved in this Breaker acknowledged to be the greatest success ever introduced into Stone Breaking machinery.

Send for Catalogue, containing over 500 references of Contractors, Miners, Railway Companies, Cement Makers, etc.

By the use of this machine cubical road metal can be produced at a low cost.

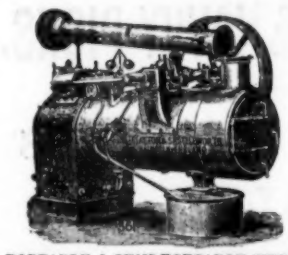
GATES IRON WORKS (A)

73a, QUEEN VICTORIA STREET, E.C., LONDON, ENGLAND.
44, Dey Street, New York, U.S.A.
WORKS: 50, South Clinton Street, Clybourn Ave and Willow Street, Chicago,
"AGENTS FOR GATES CORNISH ROLLS PULVERISER."

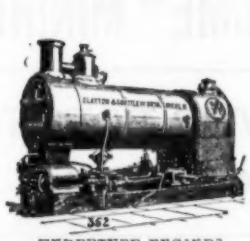
Simple, Durable, Compact, Dustless, giving a Finished Product direct from the Machine. The best Ore Granulator for Leaching and Concentrating in the World.

CLAYTON and SHUTTLEWORTH,

LINCOLN, & 78, LOMBARD STREET, LONDON.

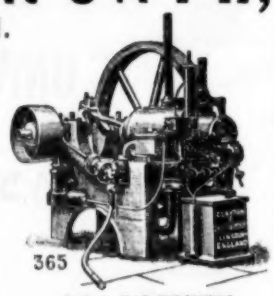


PORTABLE & SEMI-PORTABLE ENGINES.



UNDERTYPE ENGINES.

TRACTION ENGINES.



OIL & GAS ENGINES.

ALSO FIXED ENGINES, CORNISH BOILERS, THRASHING MACHINES, STRAW ELEVATORS, CHAFF CUTTERS, MAIZE SHELLERS, GRINDING MILLS, SAW BENCHES, &c.

UPWARDS of *57,000 ENGINES* and *THRASHING MACHINES* MADE and SOLD.

CATALOGUES FREE by POST to any PART of the WORLD.

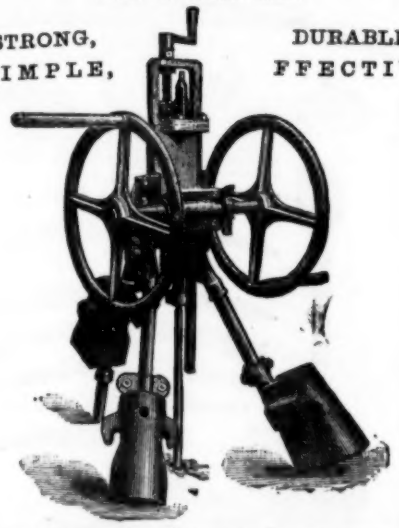
☞ Owing to increased facilities CLAYTON and SHUTTLEWORTH can now execute orders at short notice

THE "MONARCH" ROCK DRILL,

FOR HAND OR ELECTRIC POWER,

MADE IN THREE SIZES.

STRONG, SIMPLE, DURABLE, EFFECTIVE.



TWO MAN POWER "MONARCH" HAND DRILL.

The most effective Machine for Boring Rock by Hand Labour or Electricity.

FOR PARTICULARS AND PRICES APPLY TO

J. H. WEATHERDON,

37, QUEEN VICTORIA STREET, LONDON, E.C.

TONITE

IS RECOMMENDED TO CONTRACTORS, MINERS, PIT SINKERS, QUARRYMEN, AND OTHERS, AS BEING THE SAFEST OF ALL EXPLOSIVES.

TONITE is a most efficient and economical blasting agent, and is largely in demand It is exempt from freezing and the consequent dangerous process of thawing.

THE COMPANY ALSO MANUFACTURE

GELIGNITE, BLASTING GELATINE, &c.
DETONATORS, Suitable for all Classes of Explosives.
ELECTRIC DETONATORS, High or Low Tension.
ELECTRIC APPLIANCES, of all Descriptions.
SAFETY FUSE.

Address—THE COTTON POWDER COMPANY (Limited),

116, QUEEN VICTORIA STREET, E.C.

THE IRON AND COAL TRADES' REVIEW

With which is Incorporated

The Bulletin of the British Iron Trade Association.

The IRON AND COAL TRADES REVIEW is extensively circulated amongst the Iron Producers, Manufacturers, and Consumers, Coal Owners, &c., in all the Iron and Coal Districts. It is, therefore, one of the Leading Organs for Advertising every description of Iron Manufactures, Machinery, New Inventions, and all matters relating to the Iron, Coal, Hardware, Engineering, and Metal Trades in general.

Offices of the Review: 222-225, Strand, W.C.
Remittances payable to W. SHAW.

THE "DAW" ROCK DRILL.

Highest Award, International Exhibition of Mining and Metallurgy, London, 1890.

Highest Award and Medal, World's Fair, Chicago.

STEAM and AIR HOSE.

PATENT QUARRY BARS AND TRIPODS.

Improved Tunnel Columns.

AIR COMPRESSING MACHINERY.

HAULING AND WINDING ENGINES.

On view at the Offices, where Catalogues, Estimates, and all Particulars can be obtained on Application.

A. & Z. DAW, Patentees and Sole Manufacturers, 11, QUEEN VICTORIA ST., LONDON, E.C.

Registered Telegraphic Address: "GULDNES, LONDON." A.B.C. Code. Fourth Edition.

Representatives in South Africa: Messrs. BROWN and McKENZIE, Johannesburg.

Representative in Australasia: Mr. BENJ. K. MORTON, 97, Queen Street, Melbourne; 17, Post Office Chambers, Sydney.

From His Grace the Duke of Rutland.
Belvoir, Grantham,
December 1st, 1879.

SIRS,—Elliman's Royal Embrocation is used in my stables; I think it very useful.
RUTLAND.
Master of the Belvoir Hounds.

—o—

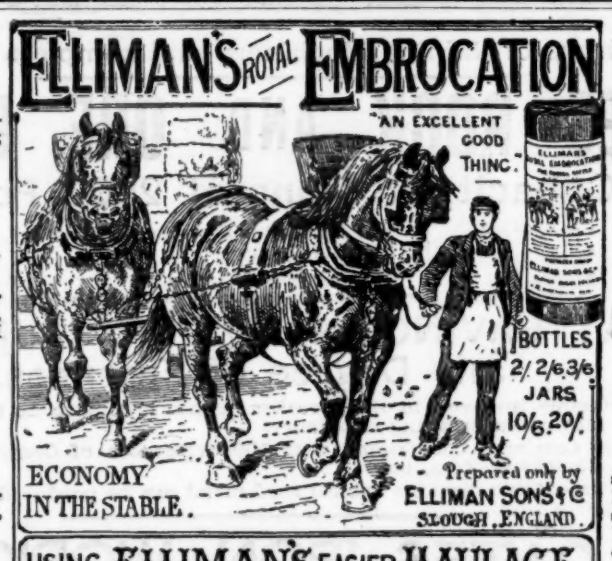
From the Earl of Harrington.
January 9th, 1889.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it the best that I can obtain. HARRINGTON.
Master of the South Wilts Hounds.

—o—

From Major M. J. Balfe, South Park.
June 16th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I can highly recommend it.
M. J. BALFE.
Master of the Roscommon County Staghounds.


ELLIMAN'S ROYAL EMBROCATION
"AN EXCELLENT GOOD THING."
BOTTLES 2/ 2/6 3/6
JARS 10/6 20/
ECONOMY IN THE STABLE.
Prepared only by ELLIMAN SONS & Co SLOUGH, ENGLAND.
USING ELLIMAN'S EASIER HAULAGE

From Lord Haddington, Tyningham, Prestonkirk, N.B.
December 27th, 1885.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it indispensable in any stable, but especially in the stable of a Master of Hounds.
HADDINGTON.
Master of the Berwickshire Hounds

—o—

From R. Burdon Sanderson, Esq., Warren House, Belford.
July 10th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it very useful.
R. BURDON SANDERSON.
Master of Percy Foxhounds.

—o—

From Wm. J. Buckley, Esq., Penyfai, Llanelly.
July 16th, 1892.

DEAR SIRS,—I have much pleasure in recommending your Royal Embrocation. I always keep a stock in my stables and kennels. My farm bailiff has also found it of much value among my herd.
WM. J. BUCKLEY.
Master of Carmarthenshire Foxhounds.

CHEAP TRANSPORT.

BY IMPROVED AERIAL WIRE ROPEWAYS. (Roe and Bedlington Patents.)

Advantages over other Systems:—

Economy in Cost and Working, Simplicity of Construction with High-Class Material, Long Spans and Steep Gradients Overcome, Reduced Wear of Cables and Few Supports.

Estimates, Pamphlets, & full Particulars on Application to the PROPRIETORS OF THE PATENTS

ROPEWAYS SYNDICATE, Limited.
150, Leadenhall Street, London, E.C.
Telegrams: "ROPEWAYS, LONDON."

ESTABLISHED 1851

BIRKBECK BANK

SOUTHAMPTON BUILDINGS, CHANCERY LANE, LONDON.

TWO-AND-A-HALF per CENT. INTEREST allowed on DEPOSITS repayable on Demand.

TWO per CENT. on CURRENT ACCOUNTS on the minimum monthly balances, when not drawn below £100.

SAVINGS DEPARTMENT.

For the encouragement of Thrift, the Bank receives small sums on Deposit and allows Interest monthly on each completed £1

The Birkbeck Almanack, with full particulars, post free.

FRANCIS RAVENSCROFT, Manager.

The COUNTY GENTLEMAN'S PAPER for Cheshire, Shropshire, and North Wales is

THE CHESTER COURANT.
(ESTABLISHED 1730.)

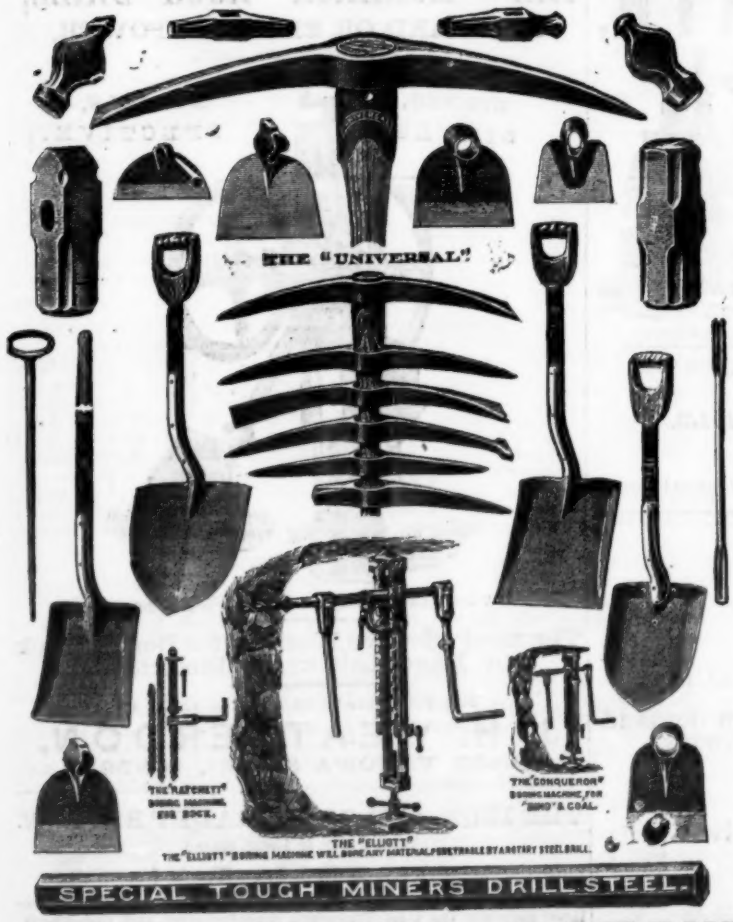
The CHESTER COURANT goes into all the best houses and has a Subscription List of remarkable scope and character.

It is a most suitable medium for advertising Patent Machinery used on large Farms or County Estates

HIGH-CLASS TOOLS,

For Miners, Quarrymen, Contractors & Agriculturists,

OF ALL PATTERNS & FOR ALL MARKETS.



Makers of the

"UNIVERSAL" & "ACME" MINING & NAVVY PICKS.

HAND AND POWER BORING MACHINES FOR ROCK AND COAL.

PICKS, SHOVELS, SPADES, FORKS, HOES, AXES, HAMMERS, WEDGES, CROWBARS.

Special Tough Drill Steel, Shear, Cast, and Blister Steel.

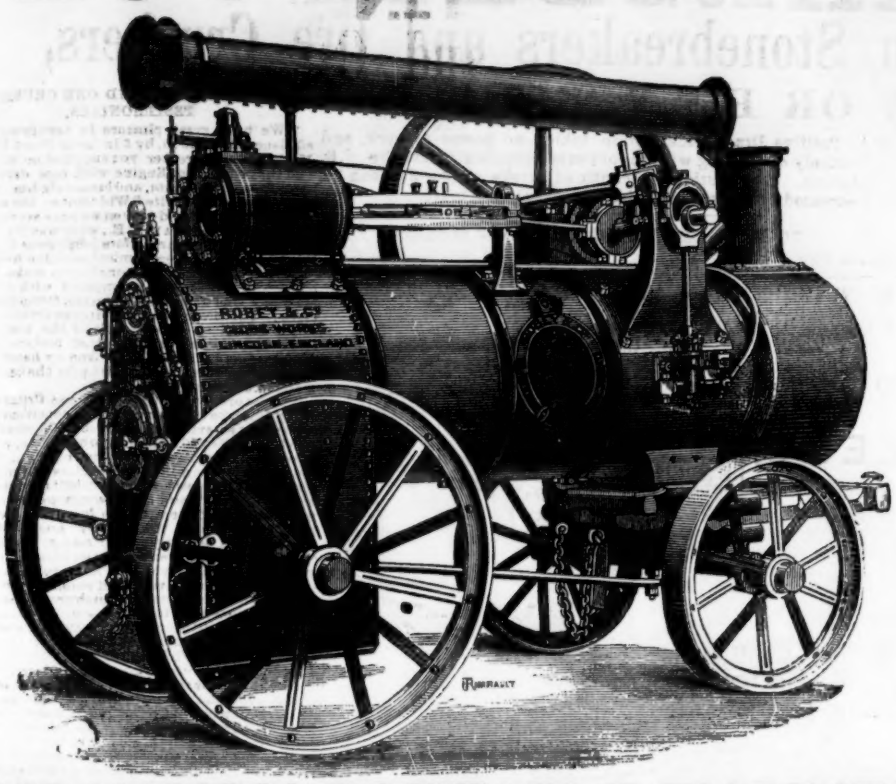
SAWS, FILES, AND RASPS.

Importers of Hickory Handles.

THE HARDY PATENT PICK COMPANY (LIMITED),

Sheffield, England.

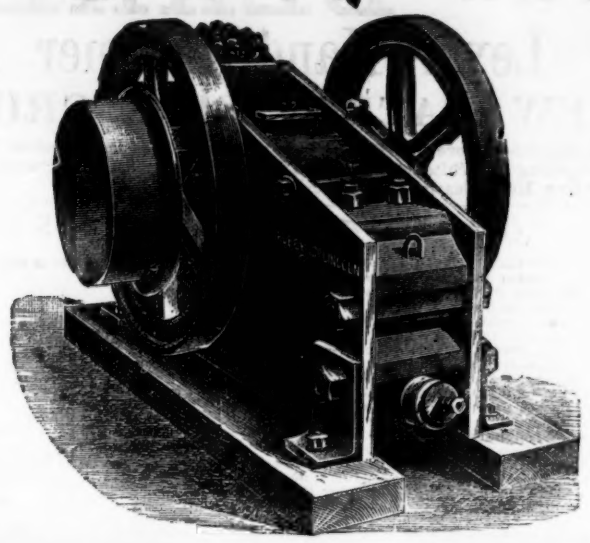
ROBEY & Co.. LIMITED.



EXPANSION PORTABLE ENGINES

Possess the following advantages:—Great Strength; Extreme Simplicity of Design; First-Class Workmanship; Great Economy in Fuel; Ease of Management; Absolute Safety in Working; Great Power and Durability.

Also manufacturers of Portable Engines, Semi-Portable Engines, Robey Engines and Locomotive Boilers combined (both compound and simple) Vertical Engines High Speed Engines, Horizontal Fixed Engines (simple and compound) Sugar Mills, Locomotive, Cornish and Vertical Boilers, Winding Engines, Head Gears, Mine Pumps, Centrifugal Pumps, Patent Gas and Oil Engines, and every description of Machinery for Builders and Contractors.



IMPROVED STONE BREAKER

AND

ORE CRUSHER

For crushing Ores, Quartz, Road Metal, Railway Ballast, Cement, Phosphates, Coke, Coal, &c.

The above illustrates the most simple form of Stone Breaker made, and has no equal for easy transport over bad roads or mountainous countries. Steel has been largely employed, and in the place of the usual heavy Cast-Iron Frame a neat and much stronger Frame of rolled steel is used, with a saving of some tons in weight. The great depth of the sides gives it increased stiffness, and the materials of which the machine is constructed ensure great rigidity and thorough adaptability for heavy work.

The parts are few and simple, and thoroughly accessible for oiling adjusting, and cleaning, and the liability to breakage is reduced to a minimum.

The jaws are easily renewed, and are made of our own special mixture and treatment, rendering the face well suited for quartz. These jaws can be adjusted while the machine is running so as to reduce the material to any desired size, and are adapted for either cubing or crushing.

GLOBE WORKS, LINCOLN.

SAFETY BLASTING IN COAL AND SHALE, ETC.

SETTLE'S Patent GELATINE WATER-CARTRIDGE

NOBEL'S EXPLOSIVES COMPANY (Limited), Glasgow, having acquired from Mr. MILES SETTLE the Sole Patent Rights of his Water-Cartridge System of Blasting have now arranged to supply through their local Agents all the Appliances required in connection therewith.

ADVANTAGES OF USING SETTLE'S PATENT GELATINE WATER-CARTRIDGE:

1.—SAFETY IN BLASTING. 2.—NO SMOKE. 3.—NO SPARK OR FLAME. 4.—NO FUMES. 5.—ALL COAL GOTTEN IN LUMPY CONDITION AND WITH A MUCH SMALLER PERCENTAGE OF SLACK THAN IN BLASTING WITH POWDER. 6.—GREAT SAVING OF COST OWING TO MORE EFFICIENT BLASTING, AND TO REDUCTION OF MANUAL LABOUR. 7.—SIMPLICITY OF THIS METHOD OF BLASTING.

Trained Experts will carry out experiments, and instruct Colliery Managers, Miners, &c., FREE OF CHARGE, on application to Nobel's Explosives Company (Limited), Glasgow, or to their Consulting Engineer.

The use of the WATER-CARTRIDGE is recommended by the Royal Commission on Accidents in Mines.

For full information apply to **NOBEL'S EXPLOSIVES COMPANY** (LIMITED), GLASGOW, or to H. ENFIELD TAYLOR, M.Inst.C.E., the Company's Consulting Engineer, 15, Newgate Street, Chester.

MANUFACTURERS OF GELATINE-DYNAMITE, DYNAMITE, DETONATORS, ETC. ETC.

D. STEWART and CO., Limited,

London Road Iron Works,

AND AT 122, CANNON ST. LONDON, E.C.

GLASGOW,

ENGINEERS

AND

BOILER MAKERS.

Telegraphic Address:
"STEWART," GLASGOW.
"OPERAMETER," LONDON.

A.B.C.Code.
Private Code.

Catalogues on Application.

Awarded the ONLY Gold Medal for Stonebreaker at the International Inventions Exhibition, in competition with all other makes.

THE BLAKE-MARSDEN 1884 Patent

Lever Hand-Hammer Action Stonebreakers and Ore Crushers,

NEW PATENT FINE CRUSHER OR PULVERIZER.

Fitted with Patent Reversible Cubing and Crushing Jaws in Five Sections, and with Surfaced Rocks, requiring no White Metal in fixing. Crucible Cast Steel Levers and Toggle Cushions, Brass or Gun Metal Bearings throughout.

Positive Draw Back Motion taking no power to work, and entirely dispensing with the old expensive Steel Embedde .R. Spring. The motion or length of Stroke of the Jaw can be increased or decreased at pleasure, to suit any material.

OVER 5000 IN USE.

70 First-Class Gold and Silver Medals

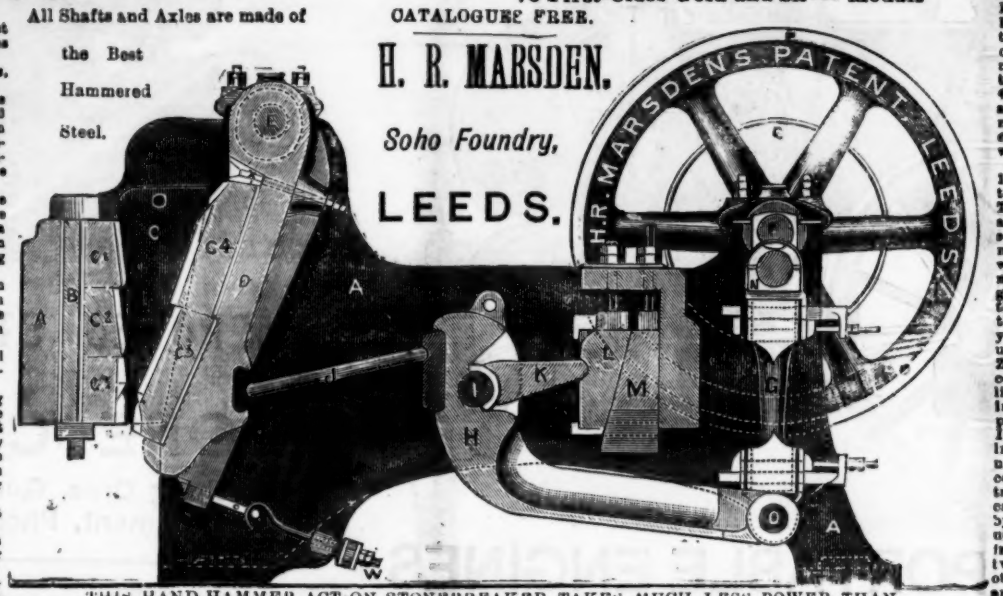
CATALOGUES FREE.

H. R. MARSDEN.

Soho Foundry,

LEEDS.

All Shafts and Axles are made of the Best Hammered Steel.



THIS HAND-HAMMER ACTION STONEBREAKER TAKES MUCH LESS POWER THAN ANY OTHER EXTANT.

PULVERIZER TESTIMONIAL

The Fine Crusher we had from you in August last is an excellent pulverizer, and rapidly reduces hard material to a fine powder."

"The Pulverizer has now been working two months, and answers its purpose most satisfactorily."

"It is with the greatest satisfaction that we write these few lines in order to acquaint you that the 12×3 Pulverizer you provided us with, has quite fully given the results you represented to us, completely reducing our material to an impalpable powder at one operation. Should you refer any one to us we should have much pleasure in recommending the machine."

"I have great pleasure in bearing testimony to the merits and capabilities of your patent combined fine crusher and sieving apparatus. I have tried it on a variety of ores and minerals, and it pulverizes them with equal success. You can put in a small paving stone and bring it out like flour."

"In reply to your favour, I have much pleasure in informing you that the 12×3 Pulveriser we had from you is giving us every satisfaction. The material we are operating on is an exceptionally hard one. I am well satisfied with its working."

"Our experience is that the motion and mechanical arrangements of your machine are the best for pulverising that we have ever met with"

"The reports from our mines as regards the working of your Fine Crusher (20×5) recently supplied are very favourable, although we cannot quote you exact figures. On being got into position it was tried by hand, with the result that it made short work of the biggest pieces of ore we put into the hopper. You might say how long you would take to deliver another of the same size."

"As I once before stated, your machine is a perfect pulverizer."

"I am sure the machine will be a success, and a great one, and there is any amount of demand for such a machine. We can work it with 20 lbs. of steam and our engine, which is a 12-h.p., plays with the work, in fact we run the Stonebreaker and the Pulverizer both together with 35 lbs."

STONEBREAKERS AND ORE CRUSHER TESTIMONIALS.

"We have great pleasure in testifying to the efficiency of the 15 in. by 8 in Lever Hand Hammer .R. Motion Stone Breaker you supplied us with. We find that our 4 h-p. Engine with ease drives it 250 revolutions per minute, and breaks six tons per hour of the hardest "Diorite." Whinstone: the sample is much before any hand-broken we have ever got done. Our Mr. P. J. GRAHAM, C.E., who was Surveyor of Highways for ten years, before joining our firm, says: It is by far the most economical machine he ever had to do with; he had two of your former make, and two of another firm's make; compared with these four machines your new patent gives the following advantages:—The horse-power required to drive is exactly 40 per cent. less. The sample of the broken macadam is so far superior to that broken by other machines, and even to that broken by hand that we can make no comparison. It is by far the best sample we have ever seen."

"I now order three of your Stone Crushers, size 15 by 10, to be of your very best construction, and to include two extra sets of Jaws and Cheeks for each. The last two 24×13 machines you sent me, which are at work in this colony, are doing very well. You will soon find that the railway contractors will adopt your machines in preference to the colonial ones—two of which I have. I know other contractors have had as many as nine of them, which have not given very good satisfaction. Once they know of yours thoroughly, I believe you will do a good trade with the colonies. For reference of the high character of your constructions you can refer to me as having used them with the very best results, both in New Zealand and this colony, and much prefer them to the colonial article, both in point of construction and less liability to go out of order. The material we are crushing is very hard blue stone, for railway ballast purposes. Push on with the order as quickly as possible: I do not think it necessary to have any engineering inspection. I have brought your machines prominently under the notice of all large contractors in this colony, likewise the Government. Many of the contractors have spoken to me in reference to their capabilities, and I could only tell them that they are by far and away the best and most economical I ever used. The very fact of me having purchased eleven from you at various intervals and various sizes, and two above 12 years ago, and having tried all the other makers is sufficient guarantee of the capabilities and the working of your machines. Yours is every way surpass all others."

CURTIS'S & HARVEY,

Gunpowder Manufacturers.

Makers of every Description of

BLASTING POWDER & PELLETS, BLACK & SMOKELESS.

E.S.M.: A Superior Quality Blasting Powder, with a Minimum of Smoke and Flame, and when Detonated as Effective as High Explosives; Loose or in Pellets.

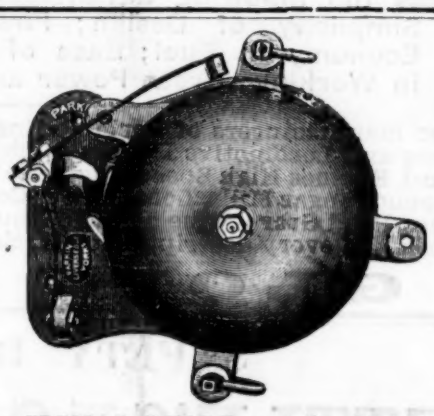
AMBERITE: A Safe, Powerful, and Handy Smokeless Blasting Explosive, containing no Poisonous Ingredients, and emitting no Noxious Fumes; in Cartridges of various Diameters.

ELECTRONITE: A FLAMELESS SAFETY EXPLOSIVE for Coal Mining, specially adapted for use in Fiery and Dusty Mines.

An expert will be sent if necessary; and full particulars as to method of Using, Testimonials, Price, &c., can be had on Application to our Office,

74, LOMBARD STREET, LONDON, E.C., OR ANY of OUR AGENTS.

WATCH THIS ADVERTISEMENT



EVERY OTHER WEEK.

These SIGNAL BELLS are the BEST and consequently CHEAPEST in the market.

All sizes from 4 in. to 12 in. for all purposes.

All Fittings steel. No perceptible wear after years of work. Simple neat and good. Thoroughly reliable.

Prices and particulars—

PARKIN, LIVERSEDGE, YORKSHIRE.

SOLE AGENTS FOR SCOTLAND:

Messrs. ARCHD. BAIRD and SON,

59-61, WATERLOO STREET, GLASGOW.

Export Agent—Mr. STEPHEN HUMBLE, Junr.,

9, Victoria Street, Westminster, S.W.

DELTA METAL

FOR ALL ENGINEERING WORK.

STRONGER AND MORE DURABLE THAN STEEL.

Specially Adapted for MINING WORK on account of its very high Resistance to Corrosion.

DELTA

CAST, FORGED, STAMPED, ROLLED, DRAWN.

For full Particulars and Prices apply to

THE DELTA METAL COMPANY (Ltd).

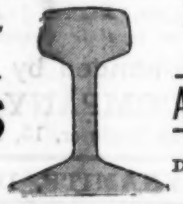
110, Cannon Street, London, E.C.

Telegrams:—"DELTA," London. Telephone No. 11292.

THOS. W. WARD,

SHEFFIELD.

All sections light, and heavy.



Tracings with Quotations.

RAILS

NEW and SECOND-HAND.

ACCESSORIES

WRITE FOR LIST OF Defective and Second-hand RAILS.

JOISTS, GIRDERS, COLUMNS, &c.

Locomotives, Cranes, Boilers, Tanks, and MACHINERY of every Description.

Buyer of SCRAP in all PARTS of the UNITED KINGDOM.

THE ADELAIDE OBSERVER.

Mining men and others in all parts of the world, who wish to secure the most complete budget of Australian news, and particularly of Mining Intelligence, will do well to have THE ADELAIDE OBSERVER regularly posted to them.

Special attention is given to Mining operations in Western Australia as well as in all other parts of Australasia.

THE ADELAIDE OBSERVER, Price Sixpence. Posted abroad, 7s. 6d. per quarter, or £1 10s. per annum.

HEAD OFFICE—GRENFELL STREET, ADELAIDE, SOUTH AUSTRALIA.

LONDON OFFICE—80, FLEET STREET.

THE OBSERVER is a splendid medium for Advertisements of Mining Machinery and requisites.

Advertisements received by all the principal London Agents or at the London address, given above.

TELEGRAMS: TUCKS LONDON.

TUCKS

GENUINE PACKING

IS ONLY MANUFACTURED BY

TUCK AND CO., LIMITED.

116, CANNON STREET, LONDON;

And at LIVERPOOL, CARDIFF, NEWPORT, BARRY, SOUTHAMPTON, DUBLIN & MELBOURNE.

WRITE FOR SAMPLES & PRICE

INDIARUBBER, LEATHER, AND ASBESTOS GOODS.

EDITORIAL AND ADVERTISEMENT OFFICES:—15, FINCH LANE, E.C.

Printed for the Registered Proprietors by JOHN ROBERT GALE, at their Printing Offices, 3, DORSET BUILDINGS, SALISBURY SQUARE, in the Parish of St. Bride's, in the City of London.—*June 29, 1895.*